Maritime Heritage Minnesota

Ann Merriman
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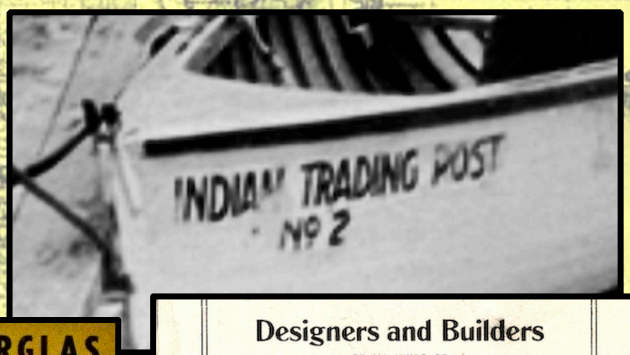
Minnesota Small Craft Project Report



RAMALEY BOATS

WORLD FAMOUS CHROME FIBERGLAS
Herter's Boats

Designers and Builders
OF ALL KINDS OF
Pleasure Craft
Joseph Dingle Boat Works

Acknowledgments

Maritime Heritage Minnesota thanks (MHM) the People of Minnesota for their support of the Minnesota Historical and Cultural Heritage Grant program, part of the Clean Water, Land and Legacy Amendment; without the MHCH Grant MHM received to conduct this work the project would not have gone forward. MHM thanks the Grants Office of the Minnesota Historical Society for their efforts. The Minnesota Small Craft Project could not have been completed without the support of the following: MHM Volunteer Kelly Nehowig, Mike Worcester and Johanna Ellison (Cokato Museum), Dan Cagley (Minnesota Historical Society), Bob Gasch and Judy Sutherland (West Hennepin History Center), Scott McGinnis, Joan Mooney (Waseca County Historical Society), Don Knauff, John Nordby (Minnesota Department of Natural Resources), Paul Petty, Karrie Roeschlein (City of Wahkon), Gary Vogesser, and the Gale Library staff at the Minnesota Historical Society. Lastly, MHM acknowledges the efforts of our Board Members Steven R. Hack, Deb Handschin, and Chair Michael F. Kramer for their continued support.

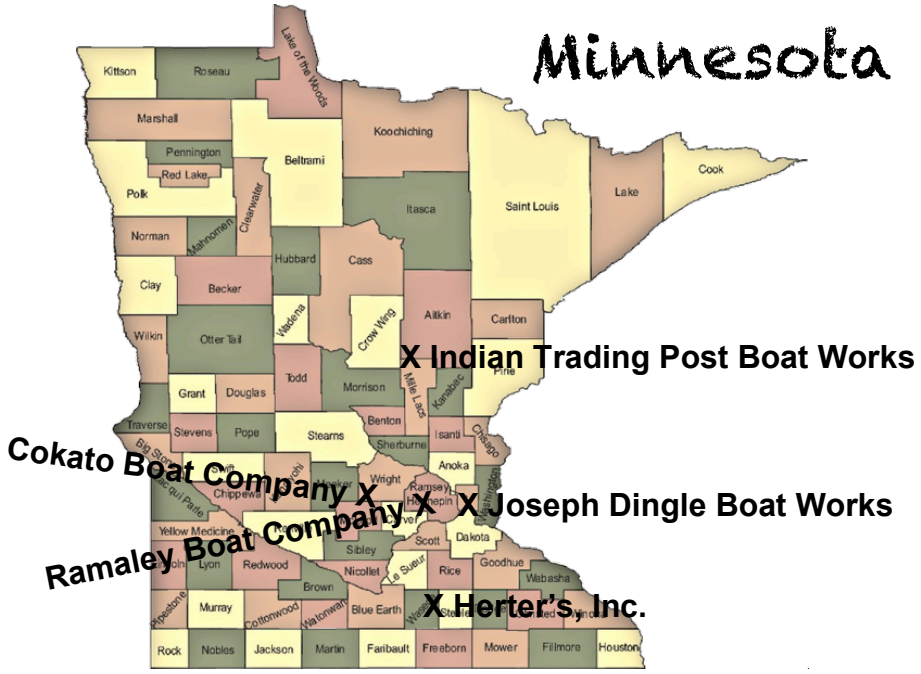
MHM Staff, Volunteers, Board of Trustees, and Mascots

Introduction

Maritime Heritage Minnesota conducted the Minnesota Small Craft Project (MSC) between February and April 2017. The purpose of the Minnesota Small Craft Project was to document, 3D scan, and conduct historical research of 5 Minnesota-produced small boats located in 3 museum collections. MHM chose watercraft constructed by the Ramaley Boat Company of Wayzata, the Indian Post Trading Post Boat Company of Vineland, Joseph Dingle Boat Works of St. Paul, Cokato Boat Works of Cokato, and Herter's, Inc. of Waseca.

Research Design and Methodology

Several Minnesota museums and historical societies have watercraft in their collections, boats that were constructed in the state. Often the general public, scholars, and students are unaware of the significance of small and seemingly mundane historic vessels preserved in our museums and historical societies. While undertaking research during the Minnesota Dugout Canoe Project, MHM took note of watercraft on exhibit and in storage at several museums. Drawing upon nautical archaeological and historical knowledge based on fieldwork and research, MHM chose 5 boats to investigate because they were Minnesota-built, rare, and relatively unknown in the maritime history of the state. MHM received permission of the holding institutions to 3D scan, measure, draw, and photograph 5 boats: Ramaley's Fisherman's Friend Row Boat, Outboard Motor Boats from the Indian Trading Post, Dingle, and Cokato Boat Works, and what was thought to be a Hudson Bay Model boat from Herter's. The 3D scanning process is a new tool MHM has utilized since late 2016 to document smaller watercraft, beginning with the Big Swan Dugout Canoe at the McLeod County Historical Society. Beyond the actual scanning and documentation of the 5 boats during the MSC Project, another of MHM's goal was to determine the usefulness of the inexpensive scanning technology chosen for the work, along with the quality of its output.

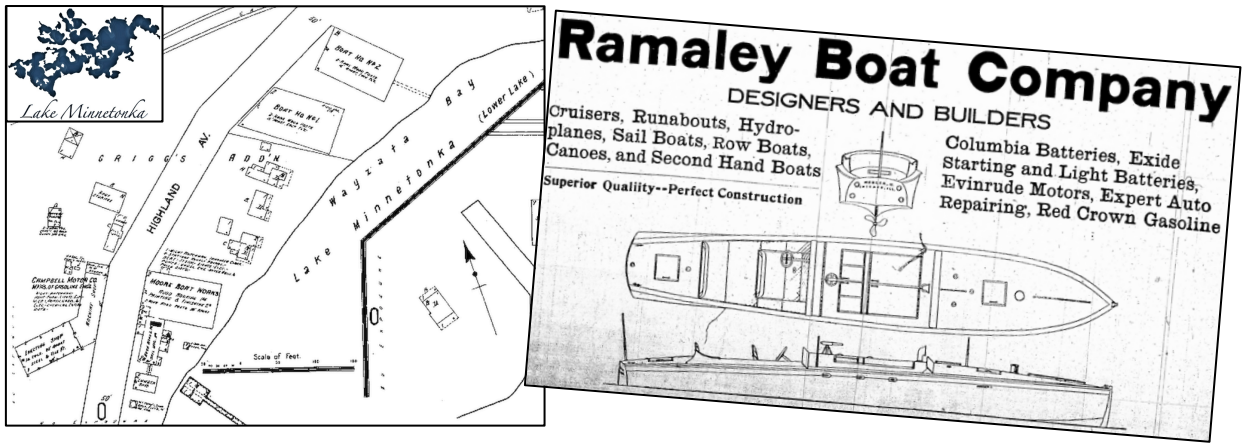


The Minnesota Small Craft Project

Fisherman's Friend Row Boat
West Hennepin History Center, Long Lake, Hennepin County

History

MHM learned of the existence of Fisherman's Friend small boats in the early 2000s when the Minnesota Transportation Museum took custody of a 6-foot long example of the type.[1] Research conducted for Lake Minnetonka sonar survey and nautical archaeological projects uncovered a Ramaley Boat Company of Wayzata brochure, dated to about 1913. The Ramaley brochure included a Fisherman's Friend row boat for sale. John Eugene Ramaley was one of the most prolific boat builders on White Bear Lake. As a young man, 'Gene' was put in charge of the sail and row boat fleet owned by his father, John D. Ramaley, docked at Ramaley's Pavilion. During his first years working at the Pavilion, Gene acquired knowledge of boat construction – both powered and unpowered – that led to his future career as a boat builder and captain. Gene and his father began operating the steamer *Manitoba* in late May 1888 on White Bear Lake. In 1891, with the experience gained from maintaining *Manitoba* and his father's fleet of recreational boats, Gene designed and built his first two yachts, *Bird* and *Shadow*. In 1895 Gene founded Ramaley Boat Company in a small barn, and then constructed a much larger shop on the lake in Cottage Park in 1899. The elder Ramaley was one of the boat company's customers as well when Gene built a new launch for his father in late May 1899. Gene also constructed and ran his own steamers *White Bear* and *Wildwood* beginning in 1900 and 1901. By 1912 the business was called the Ramaley Boat Building and Navigation Company. In that year, Ramaley purchased the Moore Boat Works on Lake Minnetonka in Wayzata, reportedly for $20,000. Ramaley continued operations on both White Bear Lake and Lake Minnetonka until 1925 when the entire boat-building enterprise was shifted to Wayzata. In 1929, Walker Boat Works, Wise Boat Works, and the Ramaley Boat Company combined to become the Minnetonka Boat Works in Wayzata (Castle 1912, 964; *Lake Breeze*, 1888a-c; McGinnis 2010, 302; *Minnetonka Herald*, 1954; *St. Paul Daily Globe* 1891a,d; Vadnais 2004, 102; *Wayzata Reporter* 1912; *White Bear Life* 1900, 1901a-b).



Left: Moore Boat Works in 1912, the same year the company was sold to Ramaley Boat Company (Sanborn Map Company 1904, 711).
Right: 1919 Ramaley Boat Company advertisement *(Hennepin County Herald* 1919, digitized by MHM).

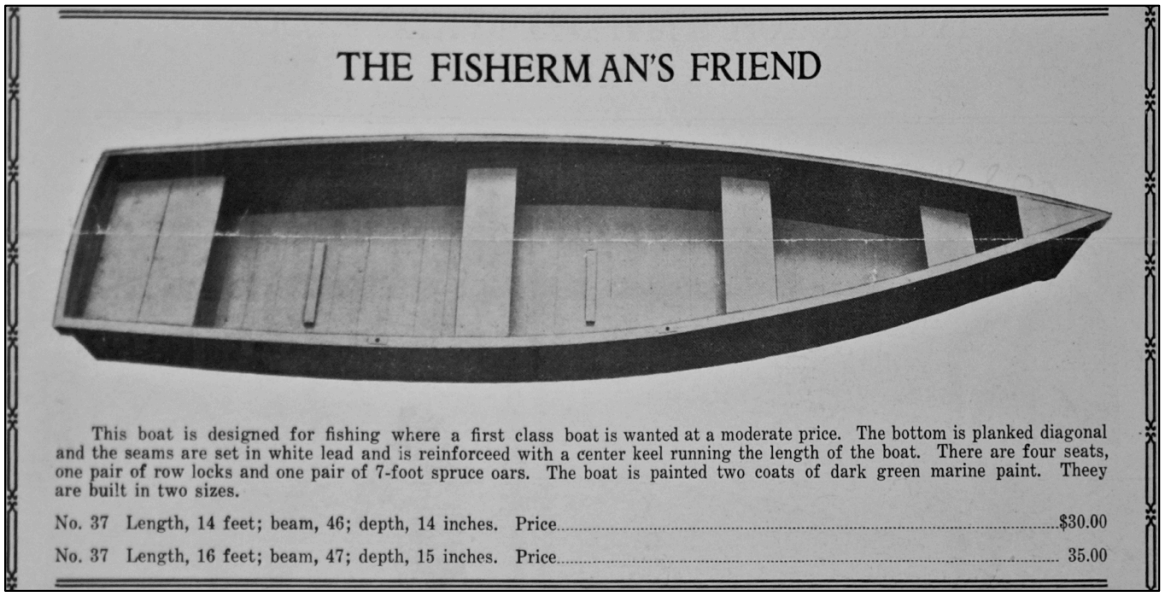
[1]This small wreck was illegally raised from the bottom of Lake Minnetonka's Wayzata Bay sometime prior to 2000.

Fisherman's Friend Row Boat

MHM documented the Fisherman's Friend Row Boat (FFRB) housed at the West Hennepin History Center (WHHC) on February 20, 2017. The FFRB derives its name from the model of small row boat produced by the Ramaley Boat Company in 1913 or later at its Wayzata location on Lake Minnetonka. The FFRB's wooden hull is 13.75 feet long, 4.00 feet in the beam, with a 12-inch depth of hold. The boat's flat bottom is athwartships planked – a diagnostic attribute for the Fisherman's Friend design. Both the port and starboard sides consist of one wide strake – a plank – along with a thinner gunwale plank with an attached rubrail. The boat's side planks are joined end to end, making it carvel-built. The stem consists of a rounded stempost attached to the keel with a triangular sampson post attached to the inner surface that extends vertically above the gunwale. The sampson post has a hole bored through it that served as a towing ring and possibly has an attachment point for a forestay. Forward, the keel is a single flat, narrow beam while at the stern, it is a two-piece beam that extends significantly below the boat's bottom forming a skeg. The square transom, like the boat's sides, is comprised of one wide strake topped with a narrower gunwale plank whose ends are angled downward to meet the port and starboard gunwale and rubrail. An unpainted vertical section on the transom marks the former location of the missing sternpost. The FFRB has three bench seats, held up by short braces attached to the inner hull; the stern seat is missing along with the port side brace. A set of oarlock holes were bored vertically into the gunwale just aft of the amidships bench and two metal straps attached to the boat's floor planks are remnants of the rower's foot braces. It is unknown if the braces consisted of individual pads or a metal or wood bar that would slide under the straps. The FFRB is held together entirely with nails, not screws.

The Fisherman's Friend (MHM).

The bottom athwartships planking and keel of the Fisherman's Friend (MHM).



THE FISHERMAN'S FRIEND

This boat is designed for fishing where a first class boat is wanted at a moderate price. The bottom is planked diagonal and the seams are set in white lead and is reinforceed with a center keel running the length of the boat. There are four seats, one pair of row locks and one pair of 7-foot spruce oars. The boat is painted two coats of dark green marine paint. Theey are built in two sizes.

No. 37 Length, 14 feet; beam, 46; depth, 14 inches. Price.....$30.00

No. 37 Length, 16 feet; beam, 47; depth, 15 inches. Price..... 35.00

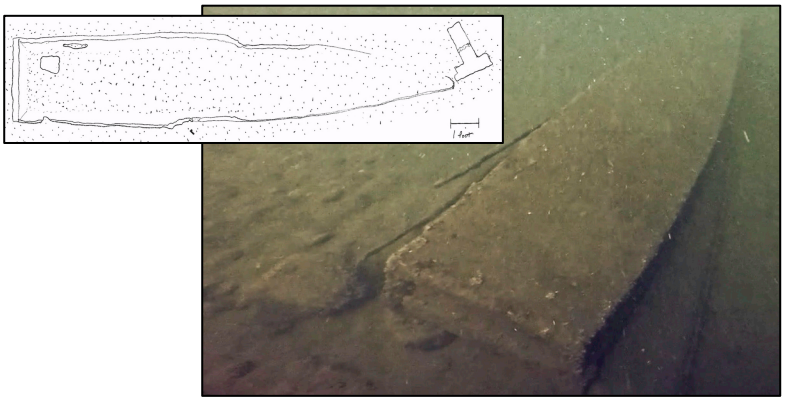
The Fisherman's Friend in the Ramaley Boat Company's brochure around 1913 (*Ramaley Boat Company* ~1913, digitized by MHM).

Ramaley Fisherman's Friend Row Boats were advertised to be 14.00 feet long, 46.00 inches in the beam (3.83 feet), and a 14-inch depth of hold, although a 16.00 model was offered as well (Ramaley Boat Company~1913). MHM contends the nearly identical measurements of the FFRB depicted in Ramaley's brochure – and the habit of rounding up numbers in catalogs and brochures – clearly suggests the boat housed at the WHHC was constructed by the Ramaley Boat Company in Wayzata after 1913. In addition to the FFRB in the collection of the WHHC, two Fisherman's Friend wrecks have been identified on the bottom of Lake Minnetonka. The Fisherman's Friend Wreck 1 (21-HE-485) is 12.80 feet long, 2.80 feet wide, with a 1.40-foot depth of hold. The wreck is capsized and lying with its flat athwartships-planked bottom exposed; the wreck has no surviving keel plank. The bow is sharply pointed and the stern has a square transom design. The wreck is constructed of three strakes on each side with a rubrail attached to the top-most strake on port, starboard, and the square transom as well. The Fisherman's Friend Wreck 2 (21-HE-489) is 15.00 feet long, 3.20 feet wide, with a 12.00-inch depth of hold at the stern. The wreck's bow would have been pointed, but

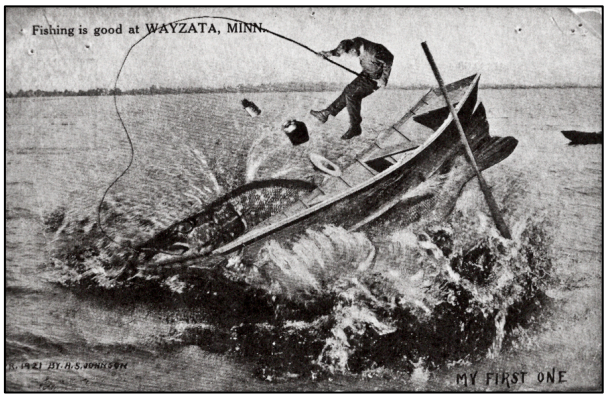
only the stempost with two hull plank fragments attached to it survive, but are detached from the wreck. The hull is carvel-built, it has a square stern, and a flat athwartships-planked bottom that is a diagnostic attribute for the Fisherman's Friend design. Although the wreck is profusely covered in zebra mussels, a small section of exposed hull indicates it is painted white. A large rock sits in the wreck at the stern, indicating the wreck was likely scuttled (Merriman and Olson 2015, 7-10, 2016, 6-8).

Generations of the Parrish family and five Fisherman's Friend boats on the east end of Long Lake (Courtesy West Hennepin History Center, Parrish 20160504-33).

Above: Ole Backlund painting his Fisherman's Friend on Lake Minnetonka prior to Spring launch in May 1937 (MNHS Qv1.2r8, digitized by MHM).

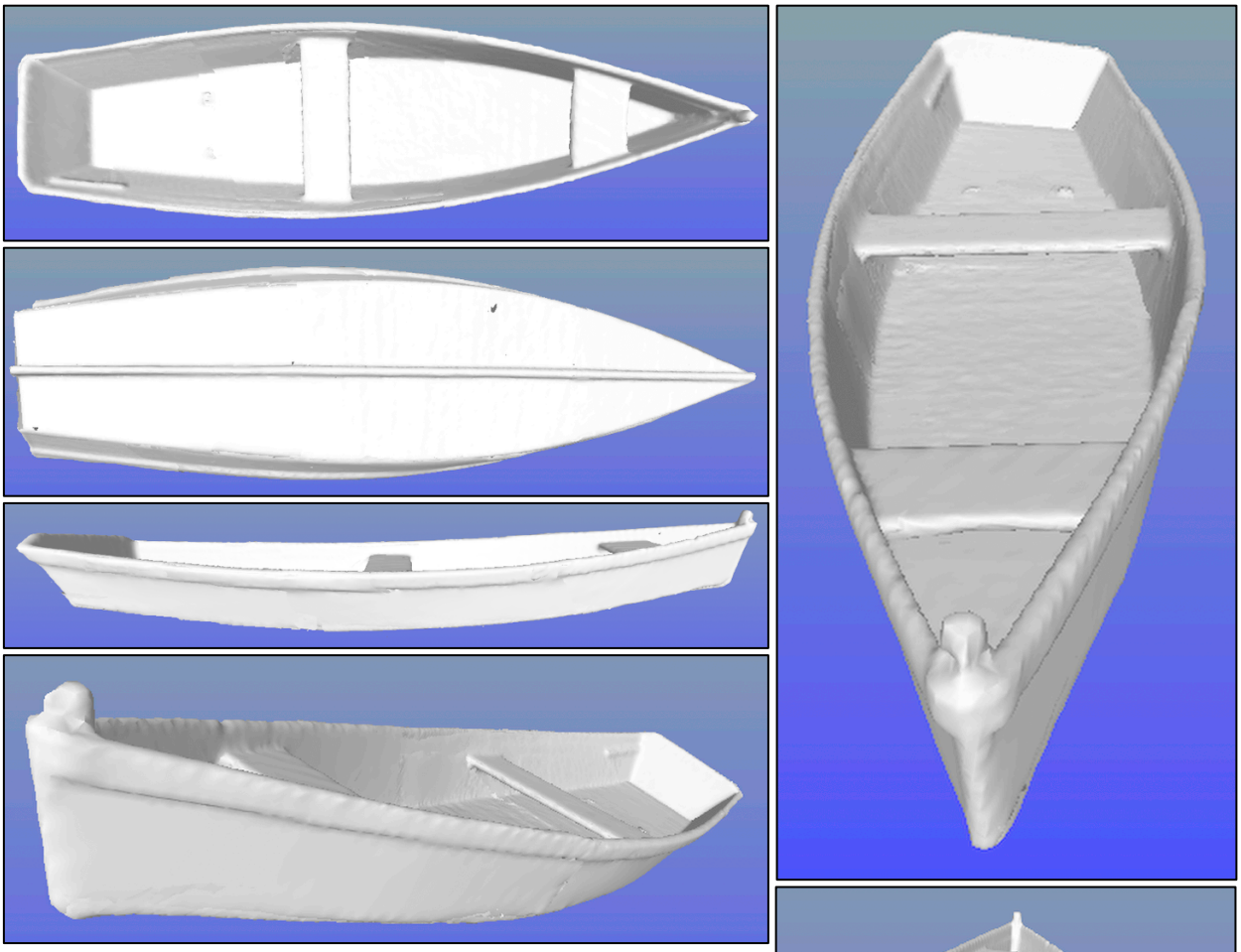


Left: A sketch of the Fisherman's Friend Wreck 2 (21-HE-489, Christopher Olson) and the capsized Fisherman's Friend Wreck 1 (21-HE-485, Mark Slick).

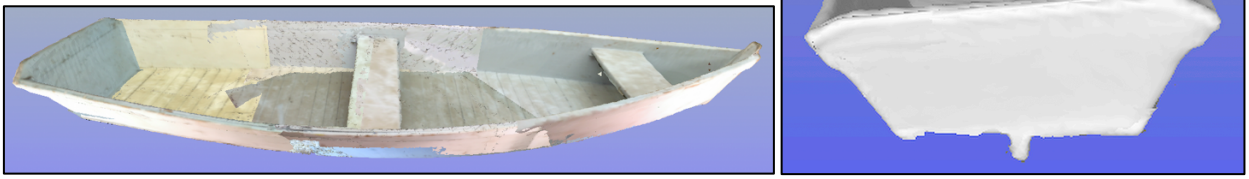


Using a Fisherman's Friend guarantees great results during your fishing excursion, if you can get them in the boat (Left: 1918 Postcard; Right: Postcard, Courtesy of Bob Gasch).

The two Fisherman's Friend Wrecks and the Ramaley-advertised version of the vessel, while not identical to the FFRB, are the same design. The FFRB lacks diagnostic attributes that are defined by a calendar date, such as the presence of slot-head or Phillips head woodscrews. The boat is held together entirely by nails and in some places, abundant numbers of them. MHM suggests a FFRB construction date of the 1920s. The Fisherman's Friend Row Boat's condition is dependent on a stable environment with an appropriate relative humidity level near 65%. The vessel has begun to warp, but this will cease – but not be reversed – if it is allowed to rest on a stable flat base, with support along the bottom on either side of the keel.

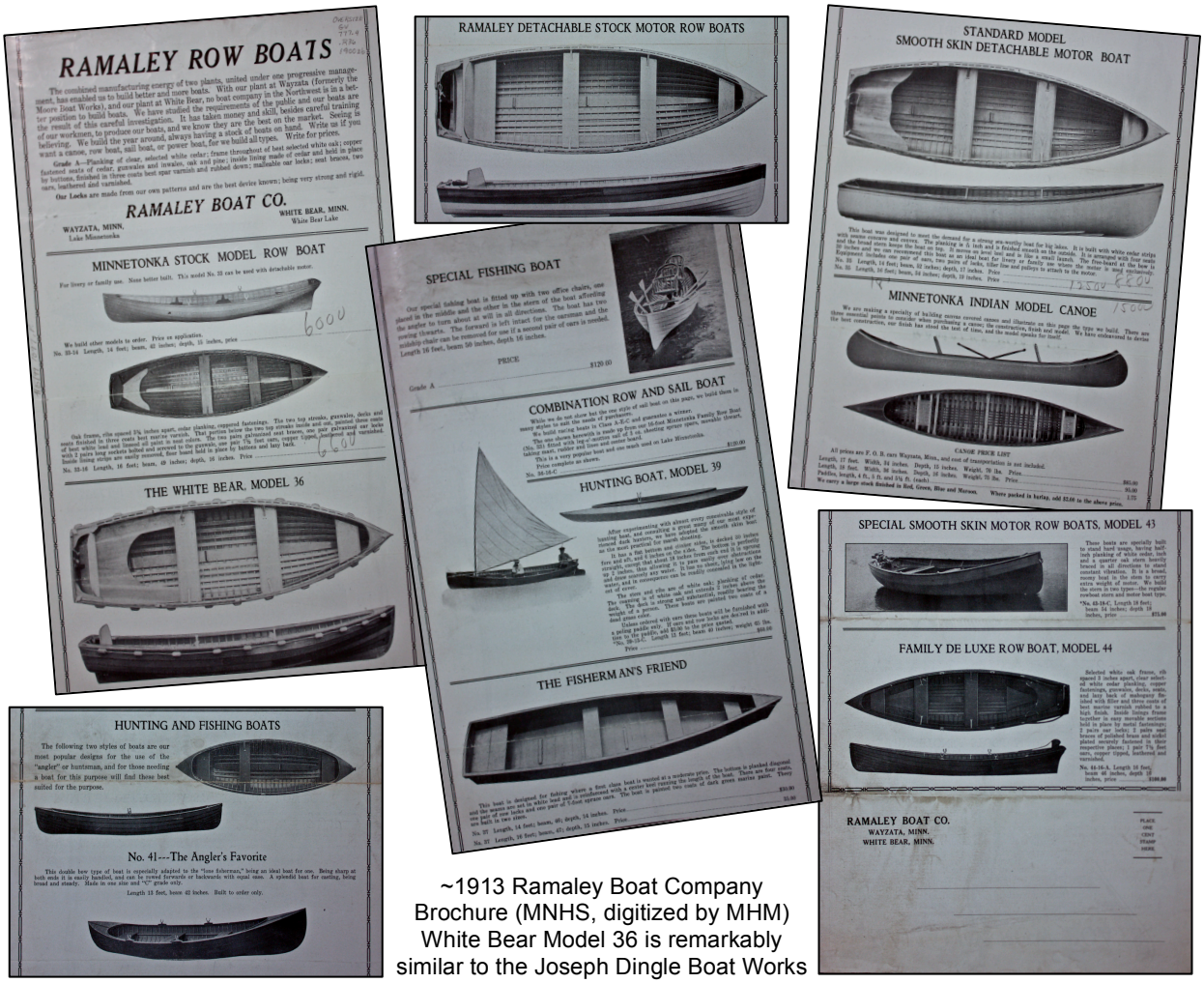


MHM's 3D scans of the Fisherman's Friend Row Boat. The scanning process included several scans saved as separate files. Because of the vagaries in lighting, the color version of the scanned image appears like a patchwork (below).



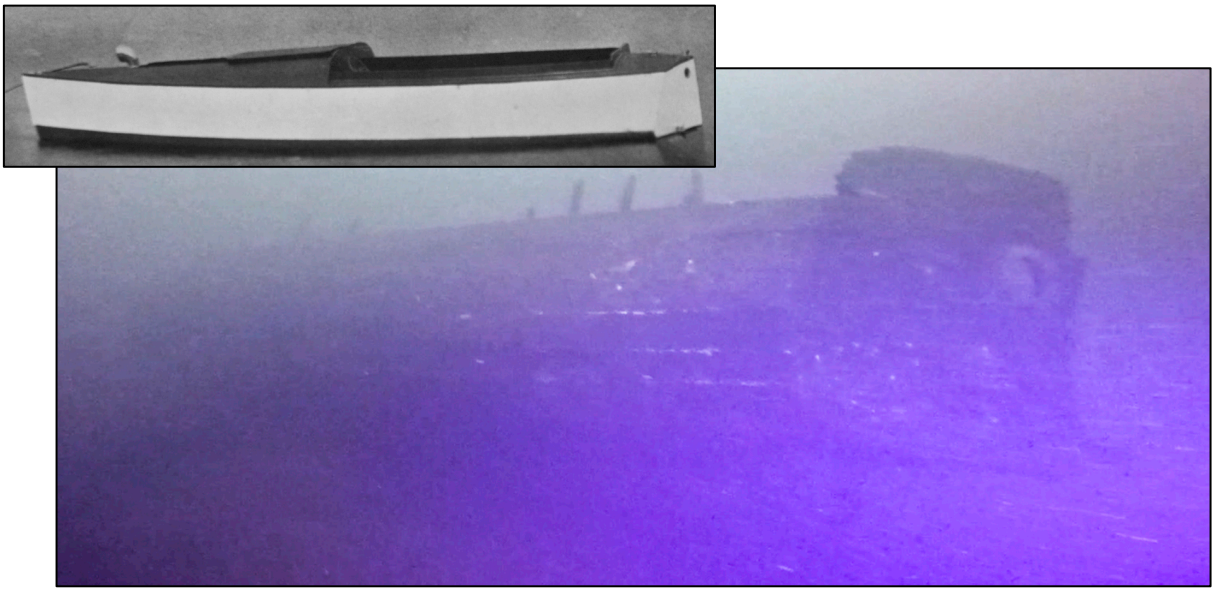
Examples of Ramaley Boat Company Vessels

(See McGinnins 2010 for information on many Ramaley boats on Lake Minnetonka).



~1913 Ramaley Boat Company Brochure (MNHS, digitized by MHM)
White Bear Model 36 is remarkably similar to the Joseph Dingle Boat Works Outboard Motor Boat (see page 21).

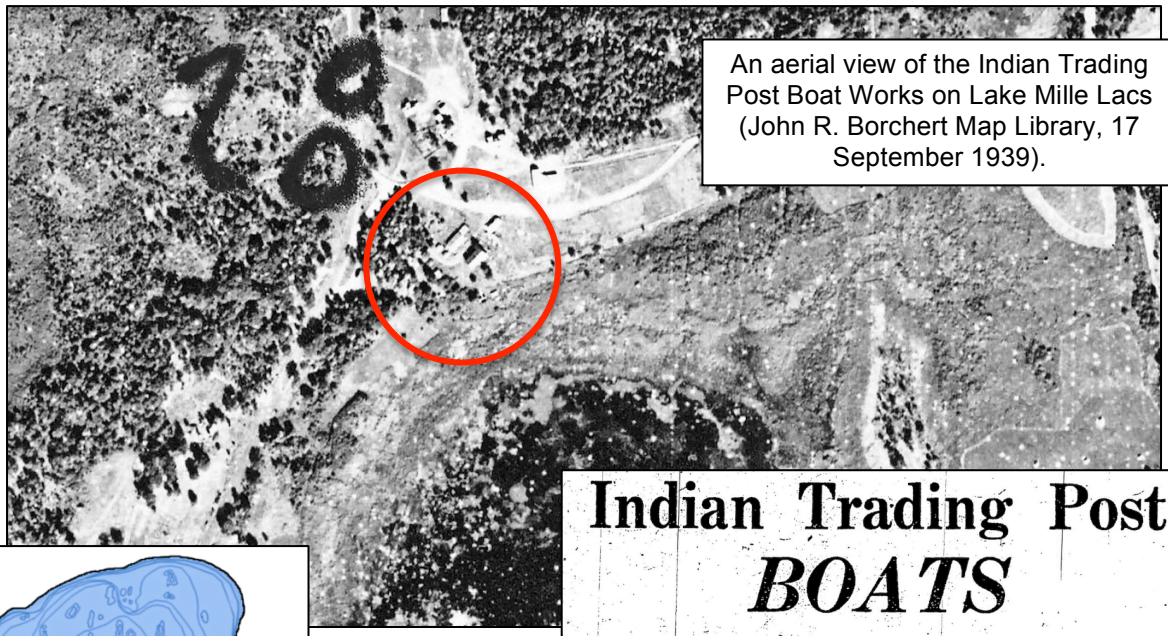
The Ramaley Family Motor Boat (Ramaley Boat Company 1911) and the Ramaley Family Motor Boat Wreck (21-HE-490) in Lake Minnetonka.



Indian Trading Post Boat Works Outboard Motor Boat (1996.250.1)
Minnesota Historical Society, St. Paul, Ramsey County

History

MHM first learned of the Indian Trading Post Boat Works (ITPBW) on Lake Mille Lacs when visiting the Minnesota Historical Society (MNHS) warehouse in January 2014.[2] The ITPBW, established in May 1929, was a subsidiary of the Mille Lacs Trading Post owned by Harry and Jeannette Ayer. It was reported that the "Indian Trading Post has a new boat factory, having purchased the Lucus boat works in Wahkon". The ITPBW was located on the grounds of the Mille Lacs Indian Trading Post; apparently Ayer purchased the Lucus firm's equipment and re-located it to Vineland. By the end of May 1929, boatbuilding was in full swing and the company advertised in a local paper and invited readers to "visit our new factory, and see them under construction". The enterprise employed only Mille Lacs Band of Ojibwe members and within a few years of its founding, the ITPBW was touted as a success in the region. This enterprise employed 18 men to construct and operate boats for the Post's tourist fishing excursions, and for sale to the general public (*Brainerd Daily Dispatch* 1929, 1933; *Mille Lacs Messenger* 1929; MNHS *Finding Aid*, ND).



An aerial view of the Indian Trading Post Boat Works on Lake Mille Lacs (John R. Borchert Map Library, 17 September 1939).

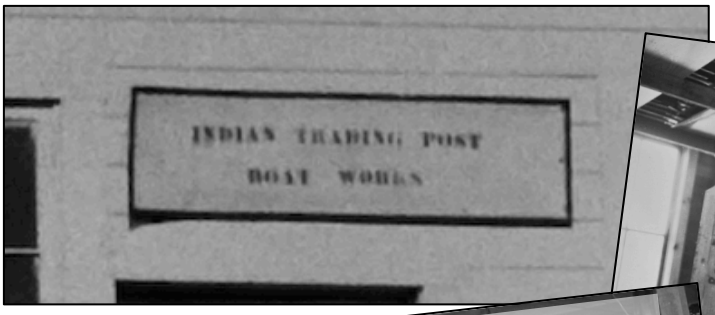
Indian Trading Post
BOATS

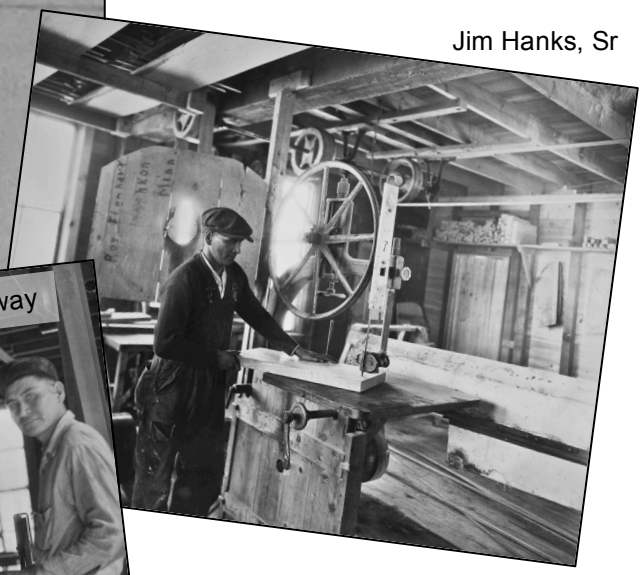
Built from quality material for years of service. Designed for safety and seaworthiness, ease in handling, sturdiness, style and comfort. Available in various sizes and models for outboard motors, livery, pleasure or family use. Visit our new factory, and see them under construction.

Mille Lacs Indian Trading Post
Highway No. 18
Postoffice—Onamia, Minn.

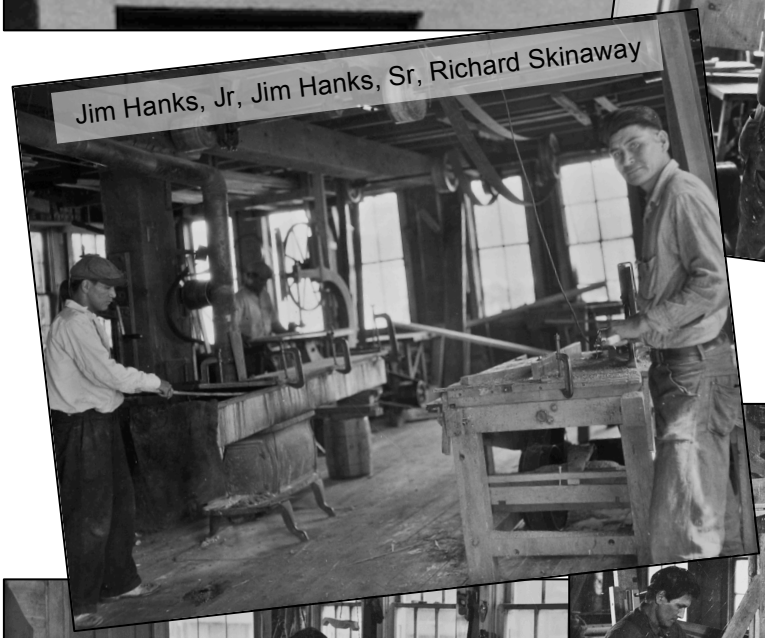
Right: Ayer promoted the Indian Trading Post Boat Works in the local paper (*Mille Lacs Messenger* 1929).

[2]MHM was at the MNHS to document and take a wood sample from a dugout canoe for the Minnesota Dugout Canoe Project.





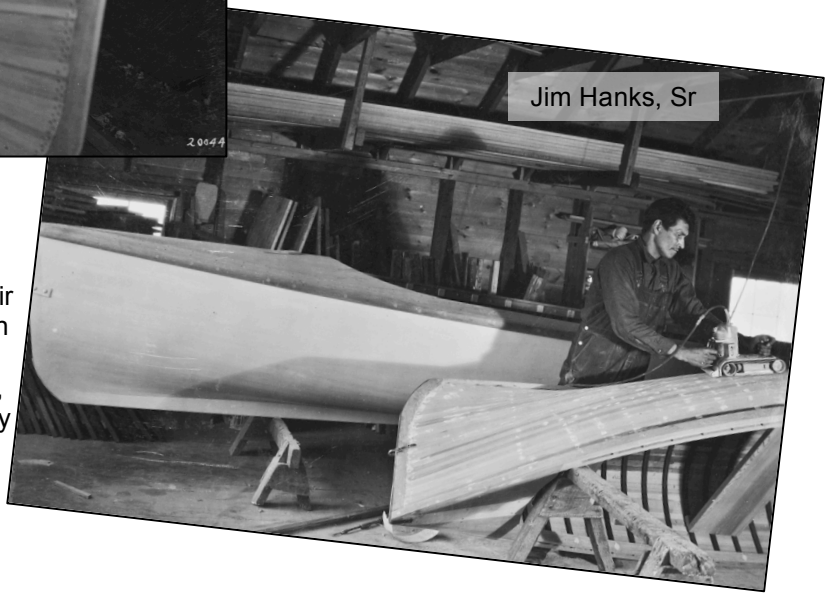
Jim Hanks, Sr



Jim Hanks, Jr, Jim Hanks, Sr, Richard Skinaway

Jim Hanks, Sr, Joe Eagle, Unknown

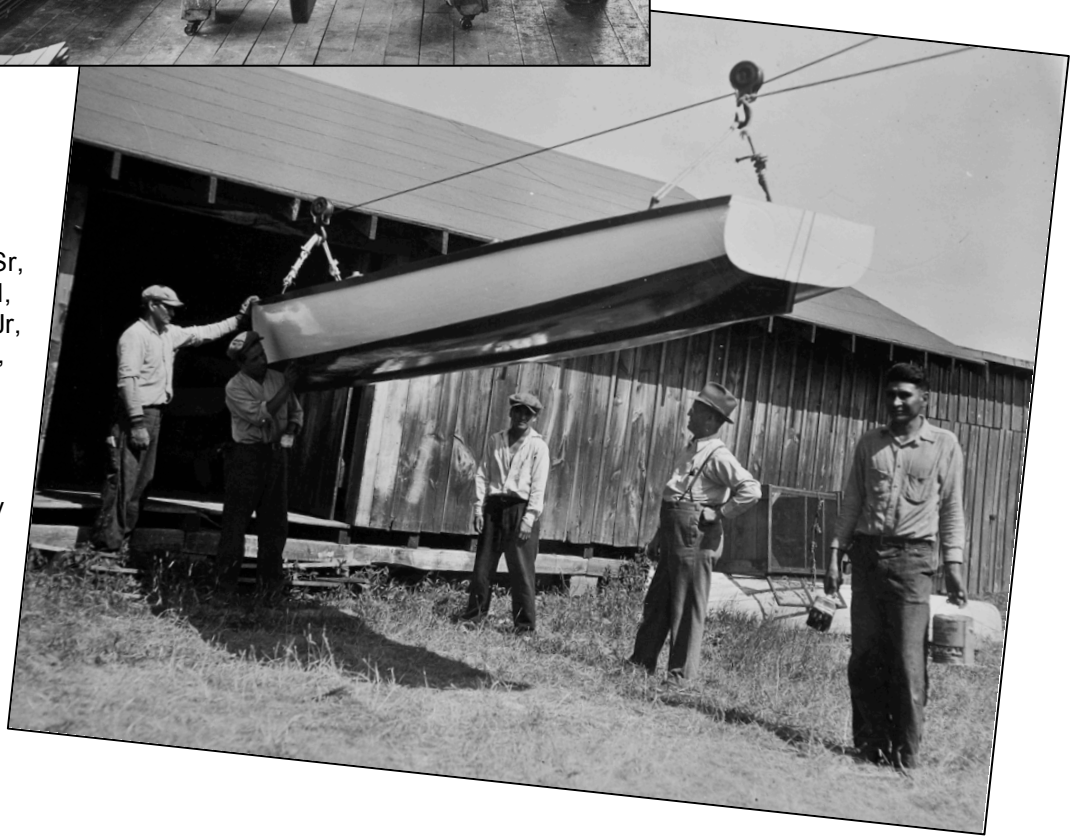
Mr. Fairbanks



Jim Hanks, Sr

The employees of the Indian Trading Post Boat Works constructing wooden boats in their fully equipped workshop in March 1931 (MNHS HE5.4p56, HE5.4p16 HE5.4p17, HE5.4p13, HE5.4p22, HE5.4p14, digitized by MHM).

Lloyd Blithe
(MNHS HE5.4p24, digitized by MHM)



Jim Hanks, Sr, Jim Mitchell, Jim Hanks, Jr, Harry Ayer, Richard Skinaway (MNHS HE5.4p19, digitized by MHM)

In November 1991, former Trading Post employees Fred B. Benjamin, Letitia B. Caldwell, Maude Kegg, Sally Mitchell, and Batiste Sam remembered people and activities associated with the Boat Works in the late 1920s-late 1930s in oral interviews. The boat factory itself was “a big barn-like building with high front steps”. “All the boatmaking equipment was there...They just worked on the ground floor...then probably boats were stored above...The boat factory wasn’t in operation during the winter...Mr. Blythe at one time was the overseer...Then Mr. Fairbanks was sort of a straw boss”. The boats constructed in the factory were described as “all strip-bottom boats. That I remember from the advertising...some were rowboats, and some were motorboats...they had a few twelve, not many – but fourteen, sixteen, eighteen and a few twenties. Mostly I guess the twenties came by order, but the popular sizes were fourteen and sixteen...Mr. Ayer kept fifty-six [boats]...for the resort use. Well, with twenty-six cabins and fifty-six fishing boats, we were so crammed every May

fifteenth...[for] the walleye fishing season" (Caldwell 1991, 37, 42-43; Mitchell 1991, 42-43).

Tourist fishermen at the Indian Trading Post Boat Works dock, utilizig Post boats for fishing excursions (MNHS GV3.33r63, digitized by MHM).

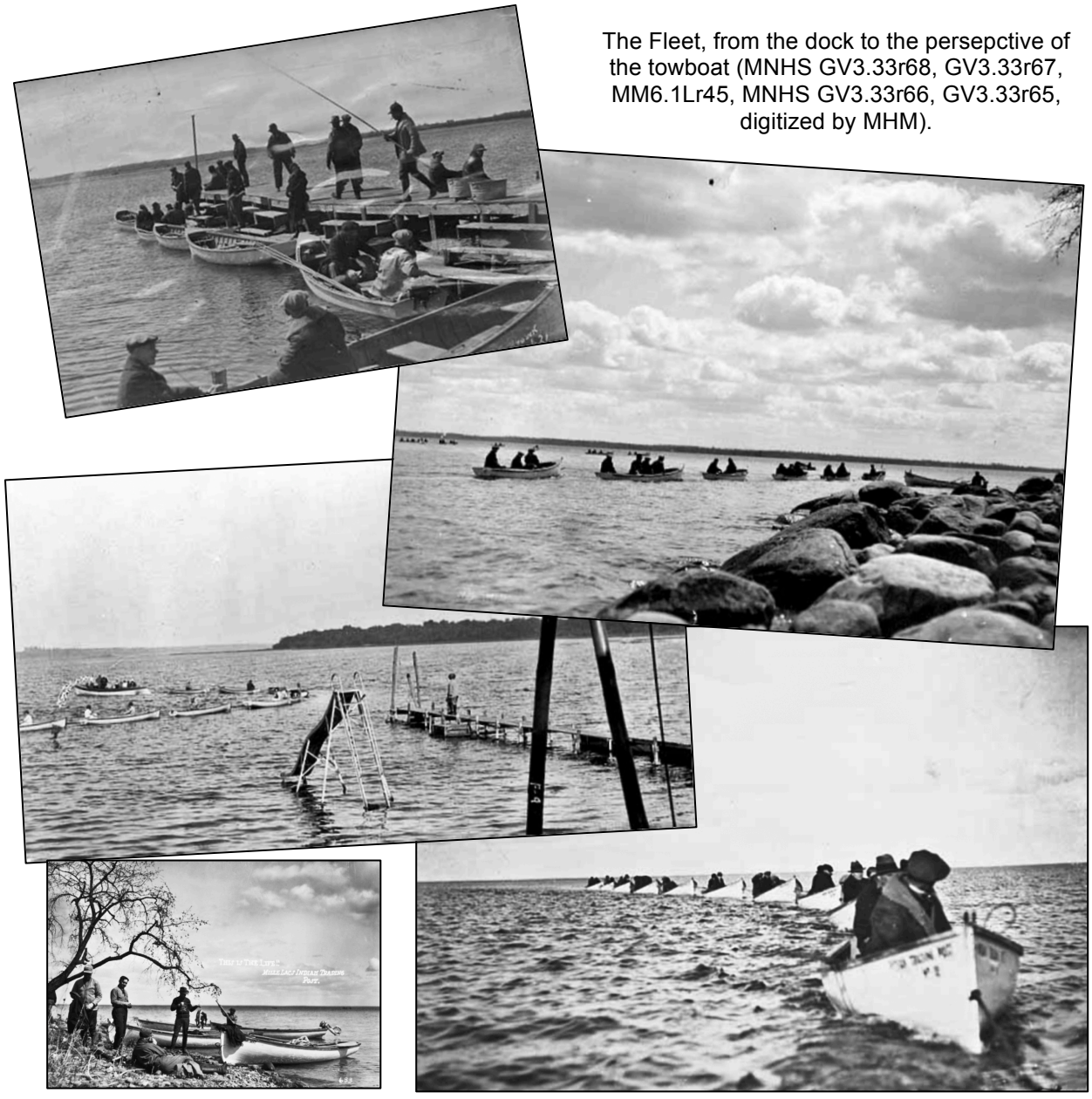
The interviewees recalled the names of several Ojibwe boat builders over the years: Joe Eagle, Sam Mitchell, Gene Mitchell, Jim Mitchell, Jim Hanks, Sr., Jim Hanks, Jr., Dick Skinaway, and Dick Garbow/Gahbow. Further, it was revealed that some of the builders also served as fishing guides and pilots. Fred Benjamin remembered "They had a great big dock too. That's where all the boats [were] used. All those Indians used to go do the pilot on the motors and take tourists to the better fishing....I didn't see any non-Indian driving a motor. They never had no accident. Every time there's a storm, Indians know exactly when the storm's gonna go. They didn't want to go. They didn't want to take anybody out". Maude Kegg stated "The Indian guys were making the boats, and there used to be a guide here...four-five-six-seven of them. They – those guys would take them [the tourists] to wherever they could fish. They'd know the reefs and where the fish bites, I suppose, so they had guides like that". More than one interviewee remembered the 'trading post fleet' comprised of tourists in rented fishing boats and a towboat, operated by a guide or pilot: "He [Ayers] had a whole fleet when I was here...there'd be a motor on one and a pilot and tow line for all the others. Maybe they'd take out eight or ten boats on one tow line". "I know my dad used to work there. He used to take the fishermen way down to the point with a motor boat. He hooked the boats with the fisherman in and then takes them over to the point...he was a guide for the fishermens....[his name was] Dick...Gahbow" (Benjamin 1991, 6; Kegg 1991, 15; Mitchell 1991, 39, 43; Sam 1991, 3, 42 44).

Lloyd Blithe, Unknown, Jim Hanks, Sr, Mr. Fairbanks, Joe Eagle, Richard Garbow/Gahbow, Leticia (Daly) Caldwell in truck (MNHS HE5.4p11, digitized by MHM)

Jim Hanks, Jr, Richard Skinaway, Jim Hanks, Sr, Jim Mitchell (MNHS HE5.4p20, digitized by MHM)

Leticia (Daly) Caldwell and the crew (MNHS HE5.4r21, digitized by MHM).

Letitia Caldwell supplied a colorful description of the ‘fleet’: “They’d hook one boat behind the other, and this long train of boats. They’d hook one boat behind the other, and this long train of boats would be going out around the point from the bay. Old Moqua would take out sixteen-twenty boats at a time...[a] long string chugging along behind the one motor boat that they used. Old Moqua would be taking them out there, and he’d take them way around the point, out of sight of the store. In the evening he’d go back and get them. They just had to stay out there all day, unless they wanted to row back. I can still see those trains of boats, like a bunch of little ducks” (Caldwell 1991, 38).



The Fleet, from the dock to the persepctive of the towboat (MNHS GV3.33r68, GV3.33r67, MM6.1Lr45, MNHS GV3.33r66, GV3.33r65, digitized by MHM).

Sally Mitchell described one strong Lake Mille Lacs wind storm and its affect on the ‘Trading Post Fleet’ and boaters: “My brother was working down at Lakeside Inn. It was very very windy – a terrific windstorm. They had taken boats out from down there, and our boats had gone out from here [the Trading Post]. Ours had come back in. My

brother was in one of the boats from down at Lakeside Inn, and his boat broke loose. He was in the last boat. It had broken loose from the line of them. He had not an oar, a paddle or anything in the boat, and he was just set adrift. From the gentleman who had the lead boat with the motor on it tried to turn, but the other boat was moving faster than he could get back to it. Se he went on in and told them that there was a boat adrift with a man in it. They called up here. There was one of the Indian boys, Johnny Door, was here. He said he'd take a boat out. He took a boat out from here and went out and got my brother's boat and towed it in. My brother was sick for the rest of the day, really honestly seasick. That was quite a rescue" (Mitchell 1991, 53).

Ayer stored the fishing boats on site during the winter. Apparently the factory ceased producing boats in 1939 and the building was torn down sometime around 1940. Fred Benjamin believed the main reason for the demise of the boat works was "The man that did a lot of boat work...he passed away. So it kind of got [shut] down...That was Hanks, Jim Hanks". It was believed that no examples of watercraft produced by the Indian Trading Post Boat Works craftsmen survived, that they simply rotted away or were burned to dispose of them. However, MNHS records stipulate that Ayer sold the boat works to the US Department of the Interior in 1939; whether the factory continued to produce watercraft or was torn down at that time is unknown. In the end, the Indian Trading Post Boat Works reportedly constructed 200 boats from 1929-1939 – (Benjamin 1991, 4, 6; MNHS *Timeline*; Waymarking 2013) with only one confirmed example surviving.[3]

Indian Trading Post Boat Works Outboard Motor Boat

MHM documented the ITPBW Outboard Motor Boat (IOMB) on February 8 and 17 and March 1, 8, and 10, 2017 at the MNHS warehouse. The IOMB's wooden hull is 17.25 feet long, 3.75 feet in the beam, with a 21.00-inch depth of hold. The stem consists of a triangular outer stempost that is curved and attached to the keel. Large bolts driven through the outer stempost attach it to the inner stempost (not seen). A U-shaped metal bracket attached to the outer hull goes through the strakes and the inner stempost; it holds a tow ring. At the stern, the keel protrudes from the hull bottom and is rectangular in cross-section. The gunwale of the IOMB is intact, although it is damaged from age and lack of maintenance. The lack of a caprail exposes the futtocks between the beams that comprise the gunwale. A thin rubrail is complete and attached to the port and starboard gunwales along the entire length of the boat, attached with slot-head screws. Further, on the port side of the boat 10.33 feet from the bow, a hull break extends from the gunwale to the turn of the bilge. Along the bilge turn, the strakes have separated and the aft portion of the hull angles inward and the forward portion of the hull angles outward. The hull consists of thin wooden strip strakes joined end to end, making it carvel-built. The substantial cambered foredeck is constructed of slightly wider strip planks than those that comprised the hull's sides and bottom.[4] The aft edge of the foredeck is shaped by coaming that extends down each side of the boat. The square transom, designed to take an outboard motor, is comprised of 2 wide 1.75-inch thick planks attached to the gunwale with slot-head wood screws.

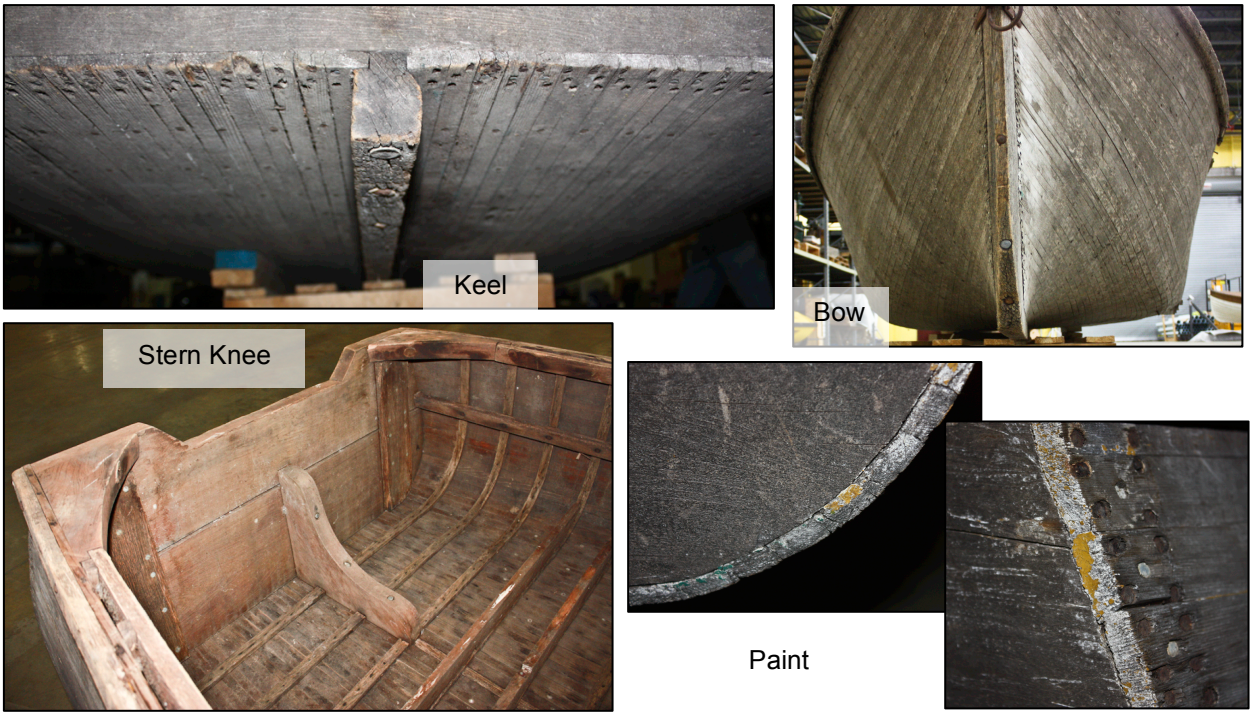
[3]Ojibwe artist Terry Kemper informed MHM that another ITPBW vessel may survive in Florida; MHM hopes this is the case (personal communication, 24 February 2017).

[4]A damaged area on the foredeck suggests the boat may have had a navigation light that is now missing. MHM contends the wood was damaged by an object sitting on the deck for many years in uncontrolled conditions, not by fittings.

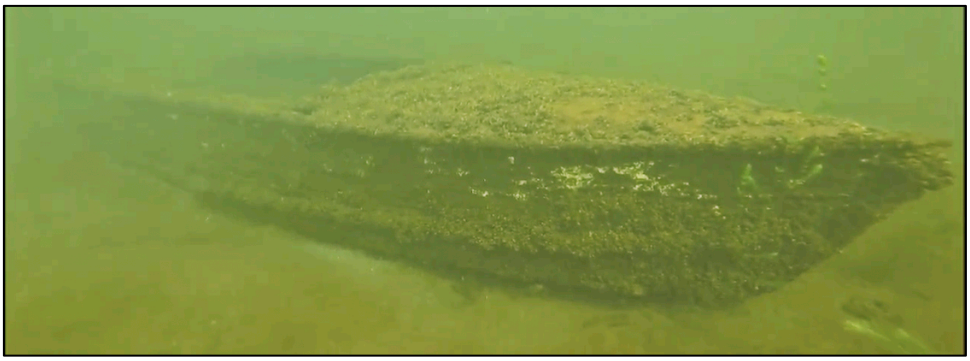
The Indian Trading Post Boat Works
Outboard Motor Boat
(Kelly Nehowig and MHM)

The IOMB has a wide flat bottom, a design necessary for stability and safety on Lake Mille Lacs. The aft section of the boat has clear tumblehome, where the hull narrows noticeably from the waterline to the gunwale. Inside the hull at the transom, a centerline knee – attached to the exposed keel (the boat does not have a keelson) and the transom with substantial bolts – adds a significant support to the stern to accommodate the outboard motor. Two horizontal knees on the port and starboard quarters at gunwale level also add stability and strength; vertical beams attached flush to the transom support these knees. The IOMB has thin frames attached to the inner hull, providing rigidity to the vessel. With the exception of the 3 aft-most frames that are interrupted by the stern knee, each frame is one long thin piece of wood that has been curved into a wide U shape, attached to the hull using short nails. Further, on top of every second floor (with the exception of the first 2 at the stern), a rider beam was attached to provide support for a deck. Triangular wedges removed from the bottom edge of the riders served as limber holes, designed to channel bilge water to the stern for later draining. Longitudinal stringers attached to the futtocks on both sides extend from the stern quarters to under the foredeck, stopping at 2 riders attached to futtocks. Attached to the aft face of the futtock riders, an athwartships brace extends from port to starboard; 2 thin stanchions connected to the brace serve as supports for the foredeck. With the exception of the construction details previously described as attached by bolts or slot-head screws, the vessel is held together with small nails. At the bow, a double row of nails attach the strakes to the stempost and at the stern, double rows of nails attach the strakes to the edge of the transom. Little paint survives on the outer hull, but traces of white primer are extant, as well as mustard yellow and dark green paint. The

green paint primarily appears at the bow and transom under the waterline; the yellow paint is found higher on the bow and transom up the tumblehome, and on the hull's sides.



Historic early-1930s photographs of finished products of the Indian Trading Post Boat Works indicate slight design differences when compared to the IOMB, some of them apparently related to the vessel's size. Images of rowboats, lighter vessels with less freeboard, have bench seats incorporated into their construction. There are no indications of benches or other seating evident in the IOMB, nor is there evidence of a deck that would have rested on the floor riders. However, for the IOMB to function as a guide and towboat for the Mille Lacs Indian Trading Post tourist fishing enterprise, a personal watercraft, or as a US Forestry Service vessel, it must have had benches or seats of an undetermined design. Further, the steering mechanism has not survived in the IOMB, and no pictorial evidence of the gear has been located. Outboard motors in the 1930s were primarily directly steered using attached tillers. However, remote steering using cables and a steering wheel was possible, but the system cannot be determined with the surviving evidence. Images of ITPBW vessels that appear to be similar in size and design to the IOMB differ in superficial details, such as the presence of aft splashrails that were never incorporated into the construction of the IOMB. Further, the IOMB coaming and accompanying caprail may have extended around the entirety of the vessel's cockpit when it was constructed, but did not survive, thus making the futtock ends visible at the gunwale. A wreck similar to the IOMB has been identified on the bottom of Lake Minnetonka. The Wooden Outboard Utility Wreck (21-HE-491) is 14.00 feet long, 3.90 feet in the beam, and 3.60 feet at the square stern with a slightly cambered foredeck. The differences between the IOMB and 21-HE-491 – beyond their sizes – are the athwartships planking of the foredeck, the wide caprail from the bow to the stern on both sides boat, and splashrails that extend along the entirety of the outer hull from bow to stern on port and starboard (Merriman and Olson 2016, 15-17).

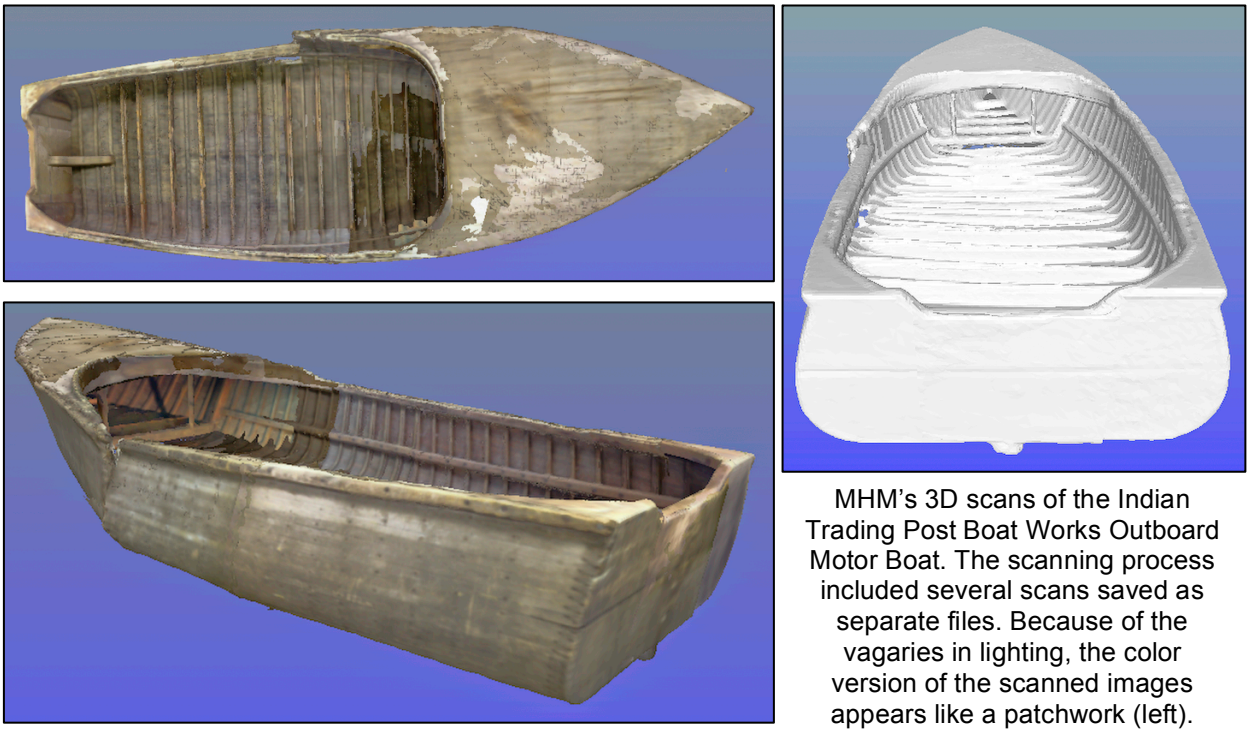


The Wooden Outboard Utility Wreck (21-HE-491) on the bottom of Lake Minnetonka (Kelly Nehowig).

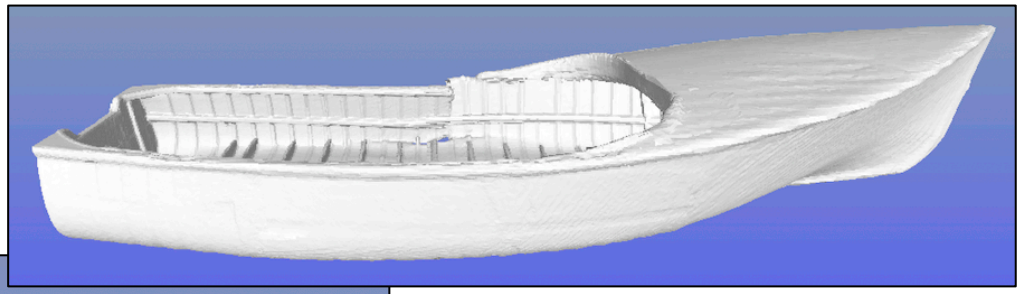
Different Indian Trading Post Boat Works watercraft (MNHS HE5.4p62, HE5.4p61, HE5.4p58, HE5.4p60, HE5.p55, HE5.4p56, digitized by MHM).

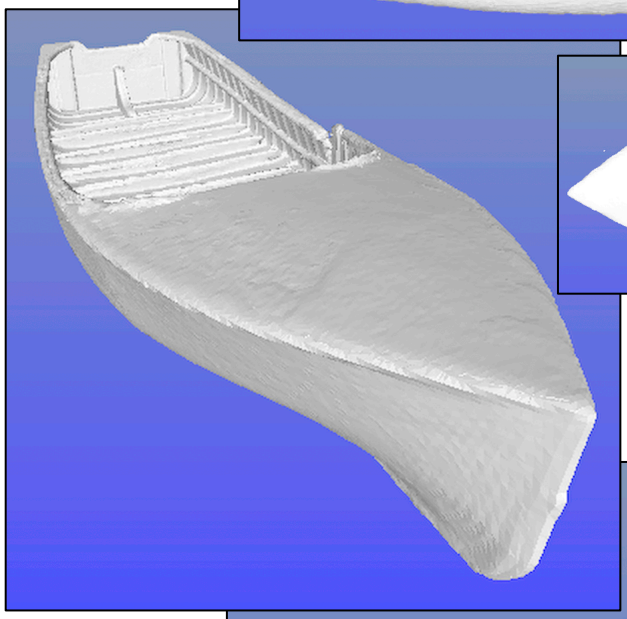
(MNHS HE5.4p54, HE5.4p59, HE5.4r15, HE5.4r14, digitized by MHM)

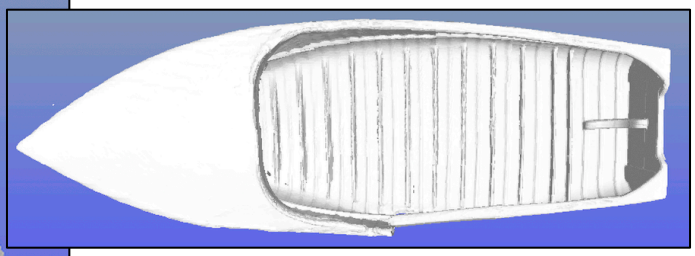
The Indian Trading Post Outboard Motor Boat is in stable condition and its continued health is dependent on a stable environment with an appropriate humidity level. The obvious checking along the boat's rubrail and gunwale is a clear indicator of inappropriate storage for decades in the past. The port side hull damage, while appearing rather drastic, is not currently having an adverse affect on the boat; no stress is being applied to the area, nor is the boat's own weight affecting stability at that point. On the whole, the vessel as it is currently stored with support to the bottom of the hull, is sufficient to sustain the watercraft's current condition.

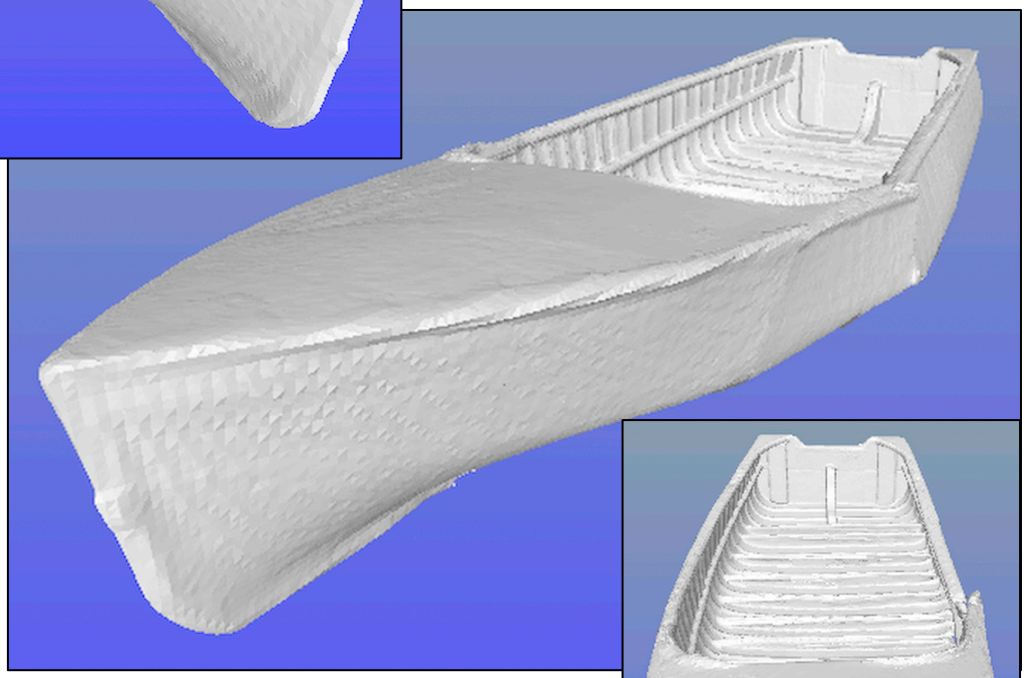


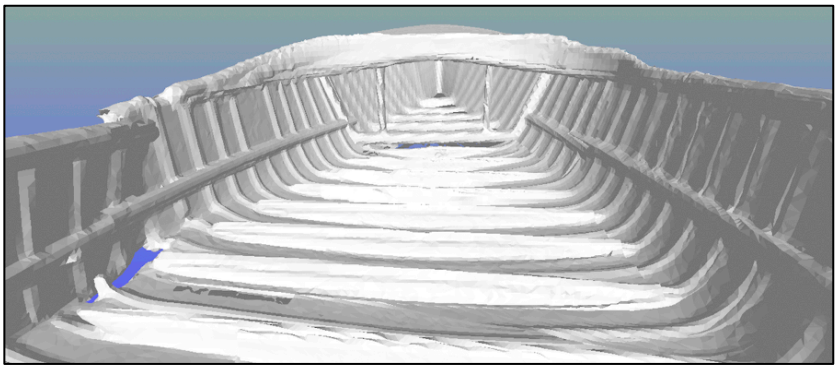
MHM's 3D scans of the Indian Trading Post Boat Works Outboard Motor Boat. The scanning process included several scans saved as separate files. Because of the vagaries in lighting, the color version of the scanned images appears like a patchwork (left).

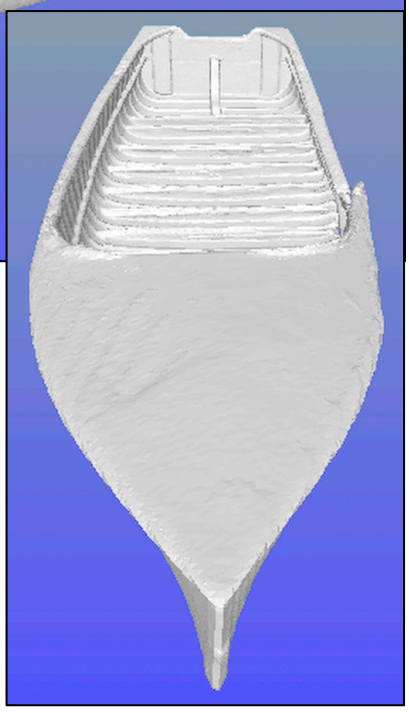








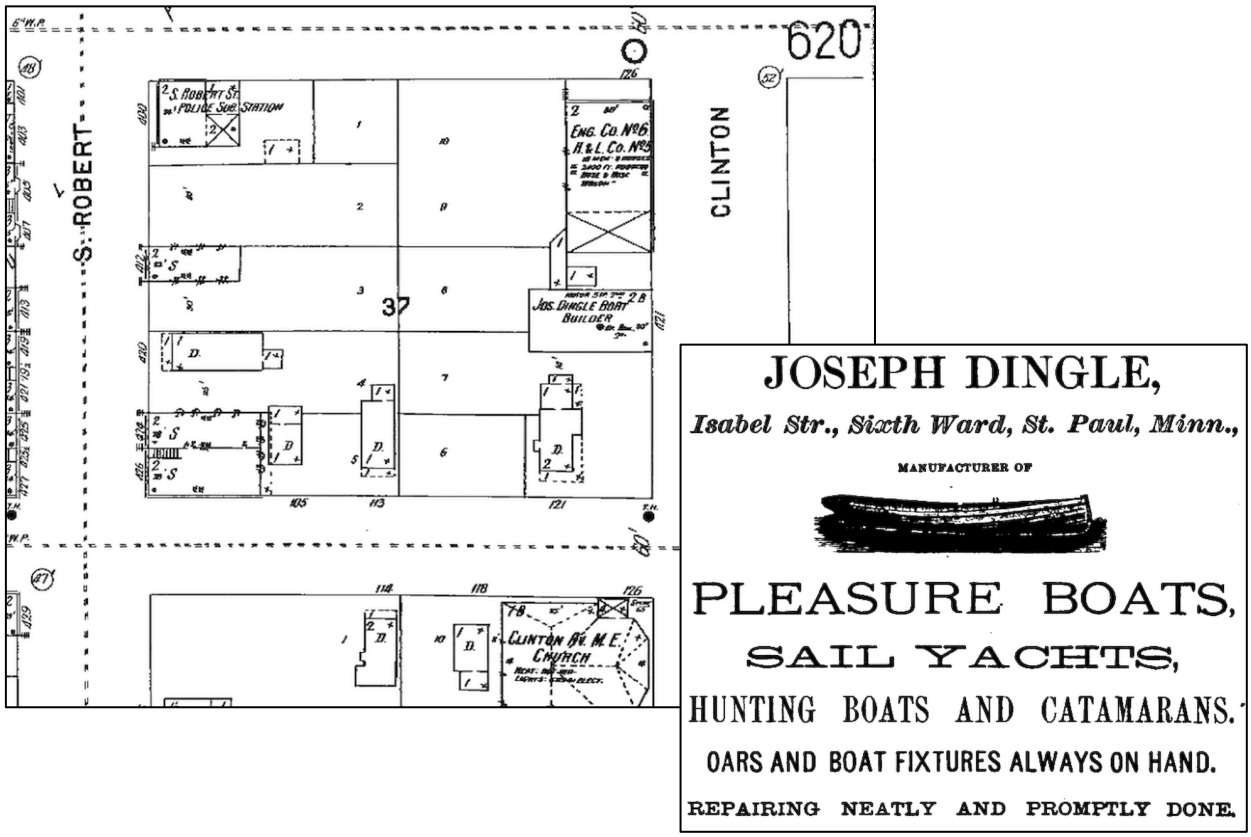




Joseph Dingle Boat Works Outboard Motor Boat (2004.82.1.A-F)
Minnesota Historical Society, St. Paul, Ramsey County

History

MHM first learned of the Joseph Dingle Boat Works Outboard Motor Boat (DOMB) when visiting the Minnesota Historical Society (MNHS) warehouse in January 2014.[5] Joseph Dingle founded the Joseph Dingle Boat Works in 1880. However, Dingle was already "quite well known as a boat builder, and has built row and sail boats for most of the lake resorts of Minnesota. One of his recent orders was for a row boat for Hon. C. F. McDonald, of St. Cloud" by March of that year. A large 1879 advertisement supports the contention that Dingle was a boat-builder prior to the recognized establishment of the firm in 1880: Dingle manufactured "pleasure boats, sail yachts, hunting boats and catamarans. Oars and boat fixtures always on hand. Repairing neatly and promptly done". The Boat Works was located at 421 Clinton Avenue. The Dingle family resided at 121 Isabel Street East – and conducted company paperwork in the home – just to the south of the workshop in West St. Paul. Today that intersection is in St. Paul proper. The house was situated on the eastern portions of lots 6 and 7 in section 37 and the Boat Works occupied the eastern portion of lot 8 on Clinton Avenue. St. Paul Fire Station No. 6 (1884-1965) was also located in section 37 next to the Boat Works, with an address of 126 Delos Street East (Legeros 2013; Polk and Weeks 1879, xvi, 167, 498; Sanborn Map Company 1904, 619; *St. Paul Daily Globe* 1880, 1885a-b).



The location of the Joseph Dingle Boat Works on Clinton Avenue between Isabel and Delos Streets (Sanborn Map Company 1904, 620) and an early company advertisement (Polk and Weeks 1879, xvi).

[5]MHM was at the MNHS to document and take a wood sample from a dugout canoe for the Minnesota Dugout Canoe Project.

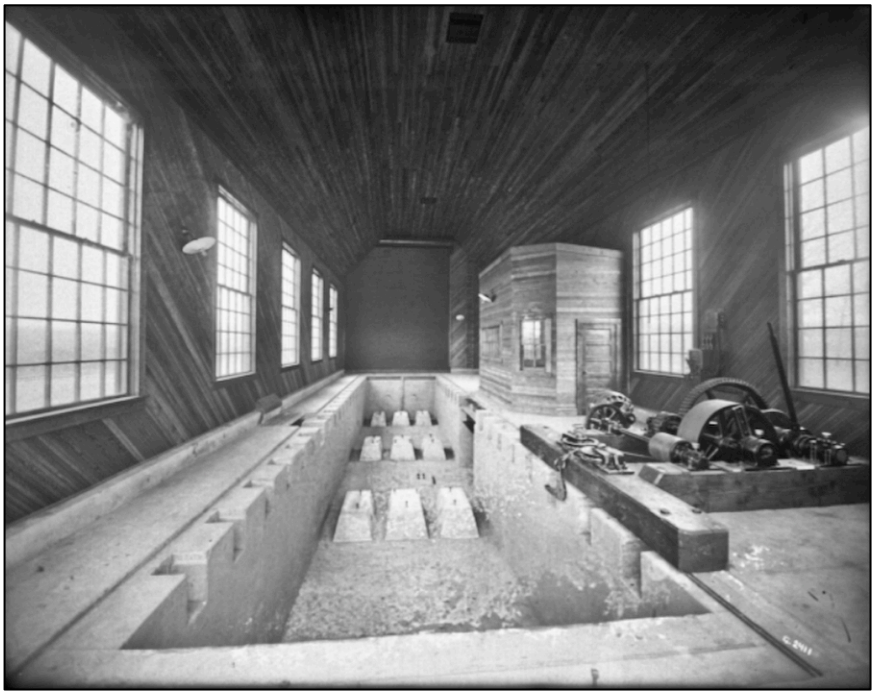
Insight into the workings of the Joseph Dingle Boat Works is found in several historical sources during the late 19th into the first half of the 20th Century. In 1895, the 'family business' nature of the factory is evident since Joseph, along with two of his sons Albert and Fred, were engaged in boat building for the company. In 1904, the Dingle factory advertised to hire "Boat Carpenters at Once; first-class wages" to assist the family of boatwrights. In 1905, Joseph and sons Albert, Fred, John, and Harry worked in the factory while son John worked as the Boat Works' clerk. Further, in 1914, six of Dingle's sons worked for the firm: Charles (foreman), Fred (manager), Harry (builder), John (salesman), Richard (builder), and Roy (builder).[6] Additionally, Otto H. Halbe built boats for Dingle that year. Also in 1914, Fred – "better known as Dingle Dongle Dingle" in the "Men We All Know" column of *Power Boating* magazine – represented the Boat Works during an inspection of the Loew-Victor Engine Company in Chicago. By 1920, another aspect of the Joseph Dingle Boat Works business was its qualification as the only Evinrude detachable motor service station in Minnesota; with the early popularity of small Evinrude outboard motors, this service was valuable to small boat owners in the state. Also in 1920, Fred Dingle's attendance at New York's 16th Motor Boat Show as part of the St. Paul Motor Boat Club's delegation was noted, as the group perused new offerings for the next boating season. The reputation and influence of the Boat Works and the Dingle Family boatwrights was evident when the Sterling Engine Company associated the company with significant North American building firms in a 1923 ad, among them: Herreshoff Boat Works of Bristol, RI, George Lawley and Son of Boston, Albany Boat Corporation of Waterliet, NY, Red Bank Yacht Works, Red Bank, NJ, and Ditchburn Boats, Muskoka, Ontario (Judson, Jr. 1920, 20; *Minneapolis Journal* 1904a; Minnesota, Ramsey County 1895, 268, 1905, Sheet 32; *Motor Boat* 1920, 42; *Motor Boating* 1923, 133; Polk 1914, 542, 750; *Power Boating* 1914, 82).

Throughout the 1880s, Joseph Dingle and his company's daily operation and accomplishments are chronicled through historical documents. In late April 1881, "Amphibious Globe Reporters" told the story of a Mississippi River flood and with it, high winds that threatened the city. It was reported "Yesterday morning the chief of police took possession of half a dozen boats belonging to Joseph Dingle, and placed them at the disposal of the police patrol. They proved to be of great service during the day." The City of St. Paul reimbursed the Boat Works $280.00 (Order 12317) for using the boats in what was termed "6th Ward Relief". On White Bear Lake, "Mr. Dingle's boats are well managed and the fishing on the Mahtomedi side, on account of the depth of water, is the best in the lake" (City Comptroller 1886; *St. Paul Daily Globe* 1881, 1883). These insights into Joseph Dingle's business – apparently he kept an inventory of boats in St. Paul and on White Bear Lake (for rental) in the early 1880s – were previously unknown and add an interesting facet into the workings of Dingle's company.

In mid-March 1884, the workshop was described as "a one and a half story frame building, owned and occupied by Jos. Dingle, as a place where he made boats". A portion of the Boat Works building and "some fine lumber, suitable for boats, was partially destroyed" in a fire. The insured monetary loss was $250, with Dingle's assurances that "he will go right on with his business of boat building the same as though no fire had occurred, that all his orders will be promptly filled, and all new

[6]Joseph and Elizabeth Dingle had 15 children, three of whom died before age 3, three of whom died aged 21-26, and one who died at age 36; outlived by both their parents (Ancestry.com).

business will have prompt attention". The St. Paul Fire Commissioner's report stated that "children playing with stove" caused the fire. MHM suggests the damage was minimal due to the proximity of Engine Company No. 6 next door to the Boat Works. The fire damage may have prompted Dingle to make construction alterations to the Boat Works building at a cost of $500 by the end of 1884. In 1888, Dingle participated in the 3rd annual St. Paul Winter Carnival, where "a beautiful sailing yacht, with canvas spread, bore the name of J. Dingle, the boat builder" in the Industrial Parade. In June 1893, the Boat Works participated in another parade that showcased St. Paul businesses, comprised of manufacturers, jobbers, and retailers divisions. The 3-day celebration centered on honoring J.J. Hill to commemorate the completion of the transcontinental Great Northern Railway line to Washington (*St. Paul Daily Globe* 1884a,c, 1885a, 1888a, 1893b).



Inside the Joseph Dingle Boat Works factory. The date applied to the image is 1920. However, it may be the interior of the airport facility at a later date (MNHS HE5.4p1, digitized by MHM).

Joseph Dingle's influence on sailboat design, construction, and racing on White Bear Lake in the 1880s to after 1900 is evidenced by the number of boats – found in the historical record – built by the firm during this period. Among them are: *Catamaran* (1884, owned by Dingle), *Manitou* (1889), *Nushka* (1889), *Merry Monarch* (1891), *Albatross* (1892), *Galatea* (1892), *Secret* (1892), *Sinbad* (1892), *Whale/Valkyrie* (1892), *Columbia* (1893, owned by Dingle), *Nancy Ruth* (<1893), *Britannia* (1894), *Katie D* (1894), *Banshee* (1895), *Esmeralda* (1895), *Petrel* (1895), and *Gamma* (1904). These boats were primarily connected with members of the White Bear Yacht Club. On Lake Minnetonka, Joseph Dingle Boat Works sailboats *Gusty Glider* (1889) and *Elizabeth* (1890) were constructed for the same costumer.[7] The designs of successive Dingle sloops were surpassing each other during White Bear regattas. Regarding *Columbia*, it was reported "Joseph Dingle has put a new sloop on the lake. It is built on somewhat

[7]See the chart on pages 36-49 for specifics on the individual Dingle Boats.

different lines from any of the other yachts...is riding at Ramaley's mooring. She is built with a sharply rising bow and a great forward over-hang. The builder's idea seems to be to have her go over the water rather than through it." Sometimes Joseph was part of *Columbia's* crew under Captain Gene Ramaley. When Dingle's newly-launched sloop *Katie D* beat his older *Nushka* and *Columbia* by over 5 minutes, "Dingle kissed and hugged the jib with joy when she came in" (*St. Paul Daily Globe* 1893d,e, 1894e).

By later summer 1895, Joseph Dingle was characterized as one of the "old and well-known boat builders" in Twin Cities yacht racing circles. In the new century, the Boat Works took contracts from the City of St. Paul's Park Board and Board of Water Commissioners, and Ramsey County, to build boats and supply gear such as oars and oar locks. In July 1900, the Boat Works furnished 5 cedar-planked row boats with oarlocks to the Park Board for $168.75 – $33.75 for each boat through the Board of Park Commissioners (Warrant 2851**)**. Another order, delivered in early June 1901, was comprised of 40 Dingle cedar planked rowboats at a price of $28 per vessel ($1,120.00, Warrant 2940). MHM suggests the decreased price per boat might reflect the lack of metal oarlocks in the big order – or a bulk order discount. These 45 boats replaced 30 'old' row boats, mostly built in 1894, deemed "unfit for further service" at 7 years of age. Further, Dingle submitted two estimates "for building, equipping and furnishing an electric launch [Warrant 2879] for Lake Como" (City of St. Paul 1902, 432-433, 436, 898-899, 902; *St. Paul Daily Globe* 1895c; *St. Paul Globe* 1900a-b). The firm delivered the electric vessel in the summer 1900 for $1,000, with payment deferred until 1901.[8]

In the early morning of April 27, 1902, the Joseph Dingle Boat Works was substantially damaged by fire. St. Paul Fire Station 6, next door to the boat factory, responded quickly – as the firefighters had done in 1884. The factory was described as a "three-story building. The lower floor, known as the boat repository, was well filled with launches and small row boats. These, with one or two exceptions, were protected by the salvage corps. A launch belonging to F. B. Doran was among the boats saved...The entire loss is estimated at $3,000 and is covered by insurance. The loss to the building is placed at $1,000. Another $1,000 will cover the cedar lumber destroyed and a third $1,000 is the figure placed on the damaged boats. The origin of the fire is unknown". Frank B. Doran was the former mayor of St. Paul, and other large launches were also saved from the fire, including *Grace* (ordered by George Gillette of the Gillette-Herzog Manufacturing Company for Lake Minnetonka), *Absaraka* (ordered by Peter Lees of the American Bridge Company), and a boat associated with the Norberg Brewing Company. Remarkably, the Moore Boat Works in Wayzata experienced a large loss due to fire in mid-February 1902, just over 2 months before the Dingle fire[9] (McGinnis 2010, 96; *Minneapolis Journal* 1902d; *Minneapolis Tribune* 1902a; *St. Paul Globe* 1902).

MHM contends the Dingle factory did not recover quickly enough from the fire to fulfill small boat construction orders for the City of St. Paul in 1902, but the Boat Works

[8]It is noteworthy that the Lake Como electric launch constructed by the Joseph Dingle Boat Works carried 4,289 people around the lake during the 1901 season, May 1-October 1, charging 10 cents per person (Board of Park Commissioners 1902, 25; *St. Paul Globe* 1900a).

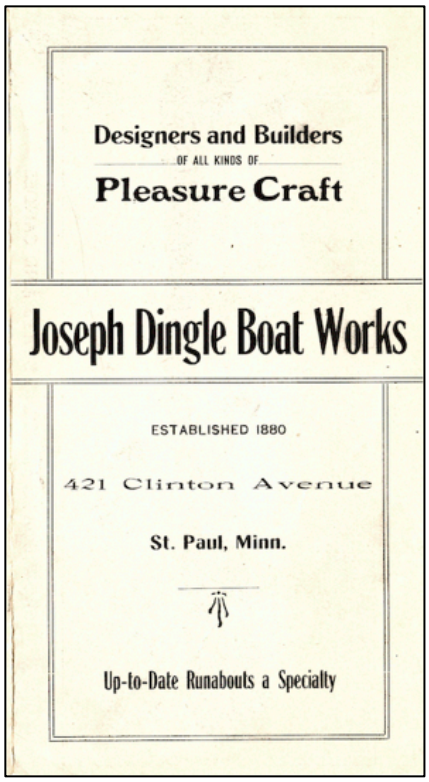
[9]Moore Boat Works lost 80 row boats, most of them on order for the Twin City Rapid Transit Company, and a large warehouse – valued at $7,000. However, the company's other buildings – and private houses - did not burn, and 4 large launches were saved from damage including *Tanager* and *Widgeon*, and 10 row boats and sailboats were saved (McGinnis 2010, 240, 270; *Minneapolis Journal* 1902a).

completed large launches – *Grace* (1902) and *Absaraka* (1902)[10] – and returned to capacity in 1903. As part of the recovery, the Boat Works began construction of fast racing auto boats, several vessels that won contests on Lake Minnetonka, in Duluth, and other places. These watercraft include *Buster Boy* (1904), *Bisbee* (1905), Janes Power Boat (1905), *Westman* (1905), *White* (1905), *North Butte* (1906), *Globe Consolidated* (1907), *Fritz* (1908), *Dick Six* (1909), *Dingle-Capitol* (1909), *Jeannette* (1909), *Pine Cone* (1909), *Sea Breeze* (1909), *Finola* (<1910), *Panama* (1915), *Dolly Dingle* (1916), *Ace* (1920), *Hortense* (~1920), and *Northwind* (~1920). These fast boats were long and heavy, upwards of 40.00+ feet, with large and powerful engines.[11]

One maritime historical link between Fred Dingle and Gar Wood – famed boat racing pioneer, boat builder and designer, inventor, and businessman – is linked to the construction of fast auto boats. Wood grew up in northern Minnesota, including Duluth from ages 10-28. Gar became involved with boats and boating and worked for Richard Schell, owner of many Dingle boats including *Bisbee*, *North Butte*, *Globe Consolidated*, *Fritz*, *Dick Six*, and *Dingle-Capitol*. In a 1935 interview, Wood described his discovery of fast Dingle boats and his pursuit of a friendship with Fred Dingle after Wood moved to St. Paul. In 1905 during trials of Schell's *Bisbee* on Lake Minnetonka, Dingle, Wood, Schell, and pilot Mattson of Globe Iron Works were pictured in the boat – a rare image of 3 significant figures in Minnesota maritime and boat-building history (Desmond 2004, 2; Fishman 1989, 41; *Minneapolis Journal* 1905b).

ON BOARD THE BISBEE.

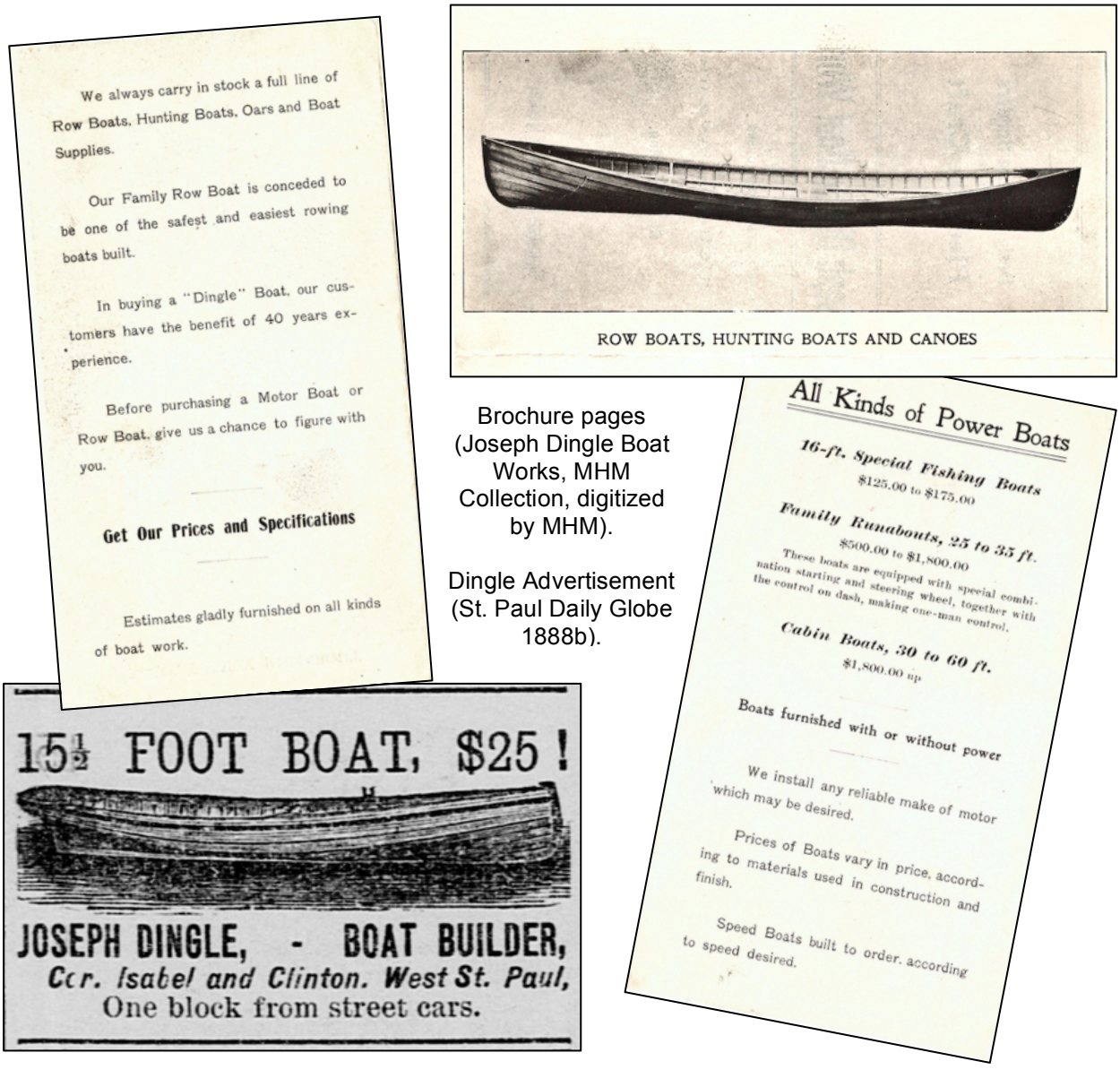
Those in the Boat Are Richard Schall, the Owner; Max Matteson, Who Held the Wheel; Wood of Duluth, Who Ran the Engine; Dingle, Who Built the Hull.



Left: Fred Dingle, Gar Wood, Richard Schell, and Mattson on Lake Minnetonka in *Bisbee* (*Minneapolis Journal* 1905b).
Right: Brochure, roughly 1920 (Joseph Dingle Boat Works, MHM Collection, digitized by MHM).

[10] See the chart on pages 36-49 for specifics on the individual Dingle Boats.
[11] Ibid.

The Joseph Dingle Boat Works continued to provide boats and boat gear to the Park Board in 1903 and over the next 25 years, including a row boat with oars (Order 13681, July 9, 1903, $33.50); oar locks (Order 3602, December 1, 1903, $2.50); launch steering wheel (Voucher 15062, June 1905, $4.50); boat (Voucher 15694, May 1906, $35.00); 50 row boats (Order 4208, June 1906, $1,400); 50 row boats (Order 4526, May 1907, $1,400); boat fittings (Voucher 16931, November 1907, $5.25); oar locks (Order 4777, July 17, 1907, $2.40); 50 row boats (Order 5169, June 7, 1909, $1,400.00); row boats and launch cover (Voucher 1478, September 1909, $86.10); 30 row boats (Order 5548, June 1910, $840.00); and 50 wooden row boats (Order 6045, July 3, 1911, $1,400). In 1915, the Water Department Fund spent $99.75 and the Parks Department spent $49.50 on unknown goods or services from Dingle, and Ramsey County purchased oars (Order 365731, $7.50) and a pulley and cleat (Order 366939, $3.20) from Dingle in 1928 (Board of Park Commissioners 1905, 66, 1907, 61, 1908, 65, 1909, 44, 1910, 1911, 78-79, 1912, 14, 37, 43; Board of Water Commissioners 1906, 39, 1907, 39, 1908, 49 1910, 48; City Comptroller 1904, 250; City of St. Paul 1915, 967, 1027; Ramsey County 1928, 41, 92).



We always carry in stock a full line of Row Boats, Hunting Boats, Oars and Boat Supplies.

Our Family Row Boat is conceded to be one of the safest and easiest rowing boats built.

In buying a "Dingle" Boat, our customers have the benefit of 40 years experience.

Before purchasing a Motor Boat or Row Boat, give us a chance to figure with you.

Get Our Prices and Specifications

Estimates gladly furnished on all kinds of boat work.

ROW BOATS, HUNTING BOATS AND CANOES

All Kinds of Power Boats

16-ft. Special Fishing Boats
$125.00 to $175.00

Family Runabouts, 25 to 35 ft.
$500.00 to $1,800.00
These boats are equipped with special combination starting and steering wheel, together with the control on dash, making one-man control.

Cabin Boats, 30 to 60 ft.
$1,800.00 up

Boats furnished with or without power

We install any reliable make of motor which may be desired.

Prices of Boats vary in price, according to materials used in construction and finish.

Speed Boats built to order, according to speed desired.

15½ FOOT BOAT, $25!

JOSEPH DINGLE, - BOAT BUILDER,
Cor. Isabel and Clinton, West St. Paul,
One block from street cars.

Brochure pages (Joseph Dingle Boat Works, MHM Collection, digitized by MHM).

Dingle Advertisement (St. Paul Daily Globe 1888b).

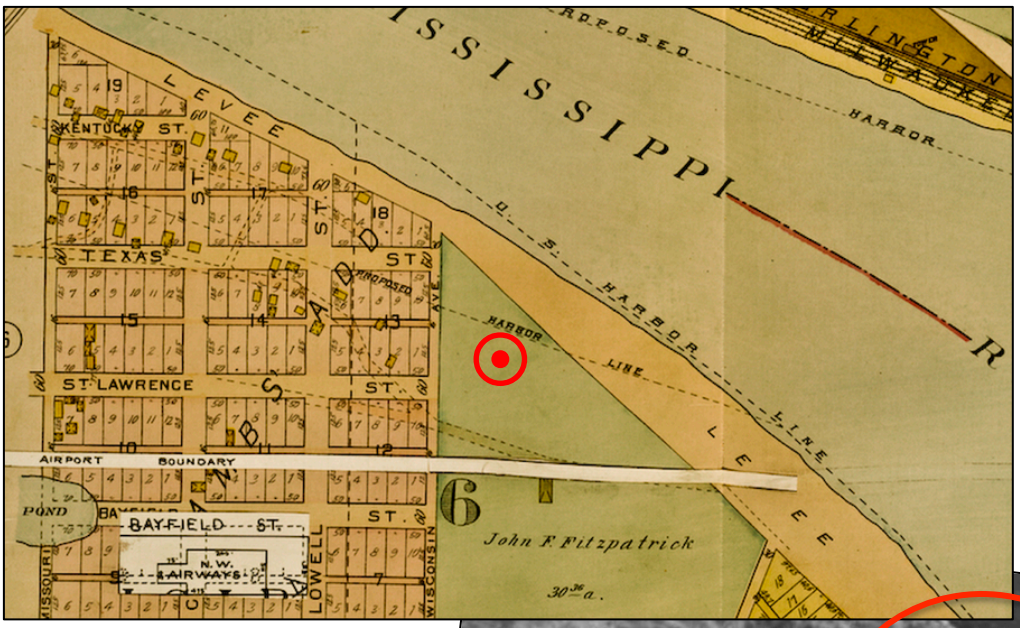
A group of Dingle boats constructed for the US Army Corps of Engineers (USACE) for the Rock Island, IL District – later the St. Paul District – are 35-foot long screw launches and are found in government records. These vessels include *Hiawatha* (1912), *Minnehaha* (1912), *Quincy* (1912), *Chippewa* (1913), *Galena* (1913), *Minneiska* (1913), *Trimbelle* (1913), and *Zumbro* (1913). The *Nodin* (1915), *Chippewa* (1935), and *St. Croix* (1935) were slightly smaller than the earlier launches. These launches were designed to carry soft Kenyon tops, often made of leather, on metal frames that could be raised or lowered; the modern equivalent is a bimini top. Moving on from the early auto boats, Dingle constructed triple cockpit runabout *Gerry Lo* in 1929 for Frank W. Griswold, founder of the Griswold Safety Signal Company for the astounding amount of $25,000. Griswold and his company were known for designing and developing railroad crossing signals and traffic signs. Griswold acquired several patents for his inventions starting with the "Bobby" signal, in addition to a rotating stop sign designed for either the middle of the road or roadside at railroad crossings. *Gerry Lo* was launched at Lake Minnetonka in 1929 and in the same boathouse until 1992, when she was sold after Griswold's death. Labeled "the most famous runabout ever built in the state of Minnesota", she was sold at auction in October 2010 for $285,000 (Mecum Auctions 2010a, 64-67, 2010b, 4-5; *Railway Signaling and Communications* 1927, 121-122).[12]

A Joseph Dingle Boat Works advertisement showcasing a runabout.

In mid-February 1931, St. Paul's Department of Public Works granted "Joseph Dingle Boat Works permission to use a portion of the levee which lies between the easterly line of Dunwell & Spencer's Addition and the westerly line of 2nd Addition of Brooklynd Addition and the northerly right-of-way of the R. I. Ry. Co.". Dingle required the levee use because of the Boat Works expansion in 1934 when Dingle constructed a new one-story 40 by 50-foot factory at 596 Texas Street. Regardless of the street address, this new building was known as 'Dingle Boat Works, Mississippi River at Airport'; it was located at the northeast corner of the St. Paul Downtown Airport Holman Field (*Commissioner of Public Works* 1931, 38; Minnesota Resources Commission 1941, 117; *Steel* 1934, 201). The Boat Works business office remained on Isabel Street. While Dingle was known to design and build larger vessels with substantial superstructures prior to the construction of the new facility – including the 55.00-foot long *Albert Lea* (1908), 33.00-foot long *Roamer*, 42.00-foot long *Calista* (1920~1925), and particularly

[12]See the chart on pages 36-49 for specifics on the individual Dingle Boats.

the 120.00-foot *North Star* (1922)[13] – the proximity of the Texas Street factory to the river, and the addition of marine railways, allowed efficient launching of larger boats. Further, docks supplied 'on-the-water storage' where the boats could be fitted out while floating, freeing-up factory space to be used for more boatbuilding.



Above: A 1916 plat map of St. Paul south of the river. The regular planned streets have never followed this plan. The location of Dingle's factory at 596 Texas Street is marked in red (Hopkins 1916, 13).

Right: This 1937 aerial image records the Dingle Boat Works, circled in red (John R. Borchert Map Library, 1937, 27 October).

Exploiting the new, larger facility, in the 1930s the Boat Works took orders for larger houseboats and cabin cruisers, boats not meant for racing or maximized speed. These craft include *EllenRuth* (1933), a Houseboat (1933), Mayo Family Cruiser (1935), *Glengarry* (1936), and the Cushner Houseboat (1937). During World War II, the Joseph Dingle Boat Works constructed the SC-497 Class Submarine Chasers *SC-1000*, *SC-*

[13]Dr. Will Mayo commissioned Dingle to construct the large motor yacht *North Star*; she took 15 men working 8 months to complete, and a purpose-built building was constructed in St. Paul to accommodate the build. See the chart on pages 36-49 for specifics on the individual Dingle Boats.

1001, and *SC-1002*[14] using specifications supplied by the US Navy. The subchaser-building program was designed to produce 438 wooden boats from 45 smaller boat-building firms around the nation, leaving steel for warship fabrication and warship construction to very large shipyards. The launchings of *SC-1000* and *SC-1002* into the Mississippi River in late October 1942 and early April 1943 were noteworthy. "The first combat vessel of the war to be built in the Twin City area was launched at the Dingle boat works here today...12-year old Patricia Ann Towle smashed a bottle of soda water against the bow" and "the third sub chaser built in St. Paul goes down the ways at the Dingle boat works today when Delores Becker, daughter of Michael Becker, foreman at the plant, christens the ship. The Diesel-powered 110-foot S. C. 1001 is a sister ship to sub chasers launched in October and November. It is equipped with depth charges". Lastly, Dingle constructed the towboat *Cartasca* [Cargill and Itasca] for Cargill, launching the vessel in September 1944. Cargill family members John Cargill, Jr., Cargill MacMillan, and Austen Cargill cruised down the Mississippi River in November, after *Cartasca's* complete out-fitting. *Cartasca* moved barges of grain from Port Cargill in Savage on the Minnesota River to points on the Mississippi River. In December 1945 the towboat sank during the process of getting her prepared for winter storage, and was raised during warmer weather (*Brainerd Daily Dispatch* 1945; Broehl 1992, 670; *Evening Tribune* 1942; *Moorhead Daily News* 1942, 1943; *Republican Herald* 1951; Sables 2005).[15]

This 1945 aerial image records the Dingle Boat Works, in the red square, just prior to its sale to the Midway Lumber Company. Marine railways and docks are clearly seen, with vessels moored (John R. Borchert Map Library, 1945).

[14]See the chart on pages 36-49 for specifics on the individual Dingle Boats.
[15]Ibid.

By 1946, George Towle (probably Patricia Ann's father) either owned the Joseph Dingle Boat Works or was the manager of the firm. Later that year, in early May 1946, the Minneapolis Dredging Company purchased Dingle's airport facilities and subsequently leased the property to the Twin City Barge and Towing Company. However, the Dingle Boat Works (not the Joseph Dingle Boat Works) existed as a subsidiary of the Midway Lumber Company at 630 North Prior Avenue in St. Paul until 1949 (*Marine News* 1946, 113; Minnesota Resources Commission 1946, 316; Research Division 1949, 185; *The Rudder* 1947, 46; W*aterways Journal* 1996, 42).

Joseph Dingle Boat Works Outboard Motor Boat

MHM documented the DOMB on February 17 and March 1, 8, and 10, 2017 at the MNHS warehouse. The DOMB's wooden hull is 16.00 feet long, 4.00 feet in the beam, with a 15.00-inch depth of hold. The stem consists of a triangular outer stempost that is curved and attached to the keel. Large bolts driven through the outer stempost attach it to the inner stempost (not seen). The bolts go through a bronze keel strip that is attached to the stempost, keel, and lower transom at the stern, where it is attached with slot head screws. A Maxwell anchor roller with an anchor lock was attached to the bow but is now loose, although it is accompanying the craft. It is not original to the boat since it was manufactured in 1953 (Maxwell 1953). A black mushroom anchor accompanies the boat. A round hole bored through the stempost serves as a tow ring and mooring attachment. At the stern, the keel protrudes from the hull bottom and is rectangular in cross-section. The gunwale has no caprail and a foredeck covers the gunwale at the bow. The aft edge of the foredeck is shaped by coaming that extends about 12 inches along each side of the boat and is attached to the inside of the gunwale. Futtocks are visible between the narrow beams that comprise the gunwale along the aft 3/4 of the vessel; the outer beam acts as a rubrail.

The Joseph Dingle Boat Works Outboard Motor Boat (MHM)

Maxwell Anchor Roller and Mushroom Anchor

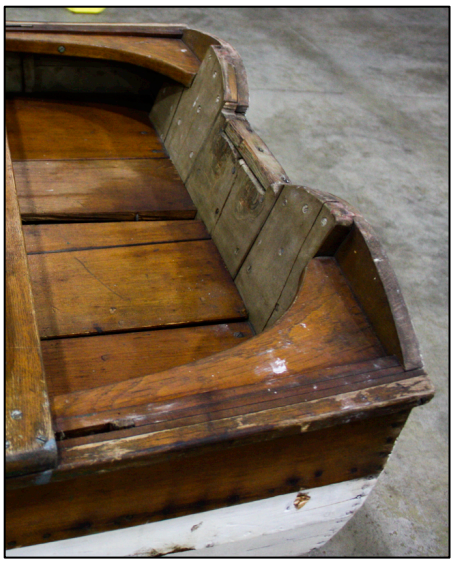
Above: The bow and foredeck of the Dingle boat, looking aft.

Right: The forward bench and foredeck of the Dingle boat, looing forward. Note the longitudinal stringers and keelson.

The hull is clinker-built (lapstrake), has a wide flat bottom, and the aft section of the boat has minor tumblehome where the hull narrows from the waterline to the gunwale. The transom rakes slightly aft and is comprised of 2 wide planks; the gunwale edge of the top plank rounded port and starboard, and flat amidships – designed to take an outboard motor. The transom plate is actually 6 vertical planks that enhances the transom's strength when the motor is on the boat, attached to the inner transom face.

Inside the hull at the transom, a centerline knee is attached to the boat's bottom and adds strength to the stern. Two horizontal knees on the port and starboard quarters inside the gunwale also add stability and strength. The DOMB has thin frames attached to the inner hull, providing rigidity to the vessel. As best as MHM can discern, each frame is one long thin piece of wood that has been curved into a wide U shape. A wide keelson rests on top of the keel and 8 stringers are attached to the top of the floors, 4 on port and 4 on starboard. The 2 stringers furthest to port and starboard are shorter than the other 6, stopping forward of amidships.

Above: Transom stern

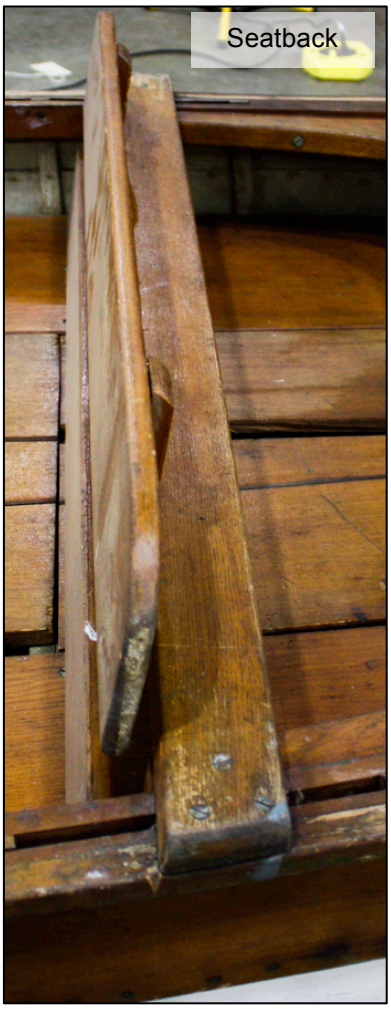


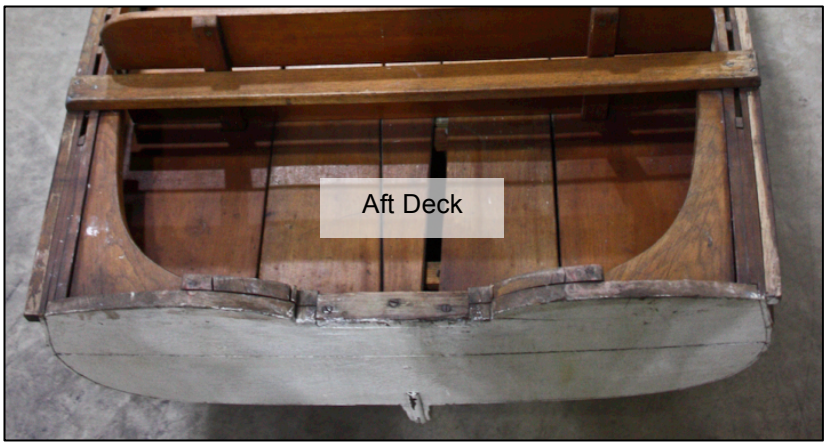
Above: The composite transom plate and gunwale level stern knees

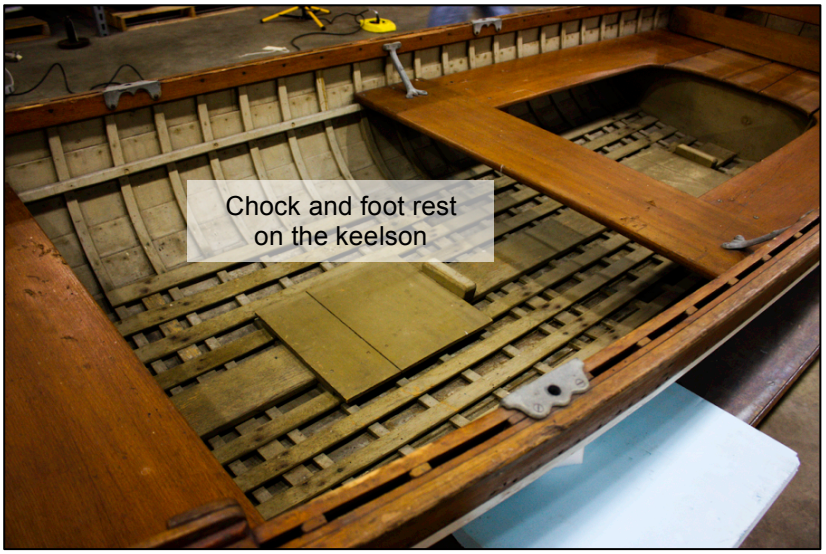
Left: Longitudinal stringers and keelson with a foot brace chock and foot rest

Longitudinal stringers are attached to the futtocks on both sides extending from the stern quarters to the bow. Benches rest on the longitudinal stringers from amidships to the stern along the vessel's sides, widening across the boat at the stern to provide a wide bench for the boat's operator. The stern bench is comprised of several wooden pieces supported by 2 athwartships riders sitting on top of floors; the forward rider is actually a bulwark that creates an enclosed stern area. A removable seat back

comprised of 2 wooden slats attached to vertical posts slots into rectangular cuts in the decking and leans against an athwartships beam attached to the gunwale on port and starboard. Behind the seat back, removable decking – comprised of wood sections – allows access to the fuel tank that is no longer extant. A gap between two of the removable deck sections exists to allow a fuel line to run from the outboard motor to the fuel tank, as well as access to the steering cables.







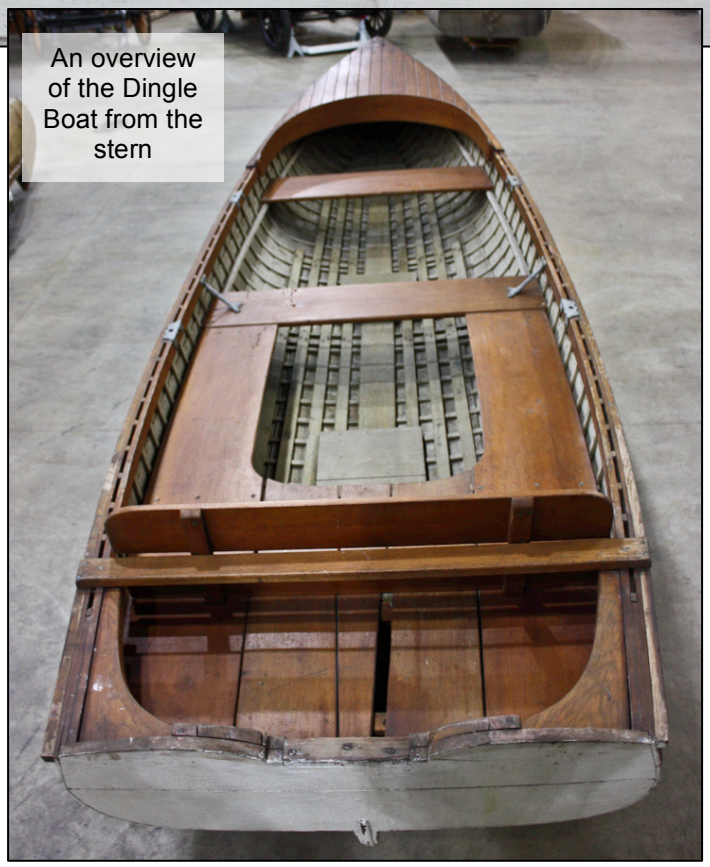
An athwartships amidships bench is attached to the forward edge of the side benches that are attached to the vessels sides with metal braces. Another bench is located forward, resting on the longitudinal stringers like the other athwartships and side benches. Four metal oarlocks, 2 on each side, are attached to the gunwale amidships aft of the athwartships benches, indicating where rowers should sit. Two mismatched oars, one with copper applied to the tip of the blade, a wooden boat hook with a metal end, and a carved wooden flag mast are associated with the watercraft.[16] Additionally, two wooden chocks attached to the boat's keelson serve as the rower's foot braces. Forward of each chock, removable flat platforms serve as foot rests for the rowers feet; an additional forward foot rest is located under the foredeck for a front bench passenger's feet. The watercraft is held together with slot head screws and short nails,

[16]MHM suggests one of the oars and the mast were not donated to the MNHS with the Dingle boat but are now erroneously associated with it.

the hull is painted white, and the foredeck and coaming are unpainted. The unpainted top strake on both port and starboard has the outlines of the numbers and letters that comprise the boat's registration number – WS 5736 EG.

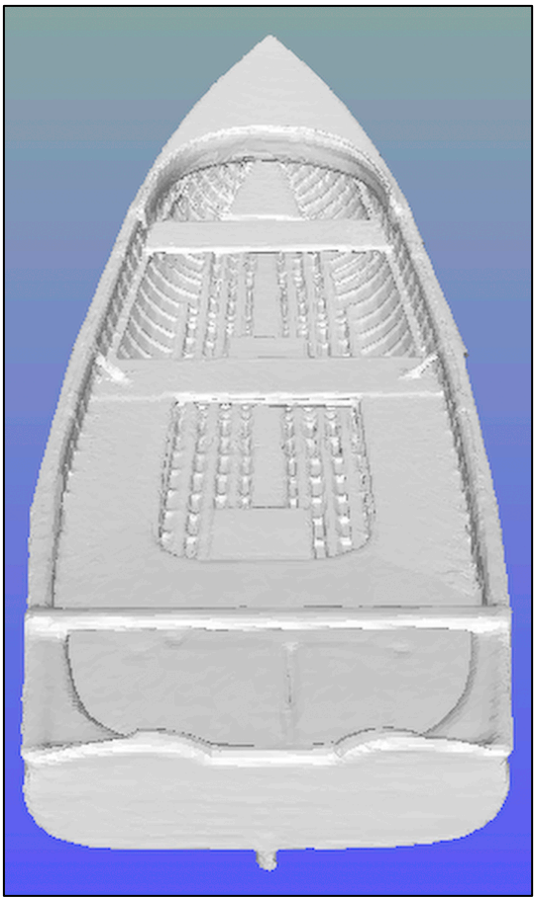
Oars, boat hook, flag mast

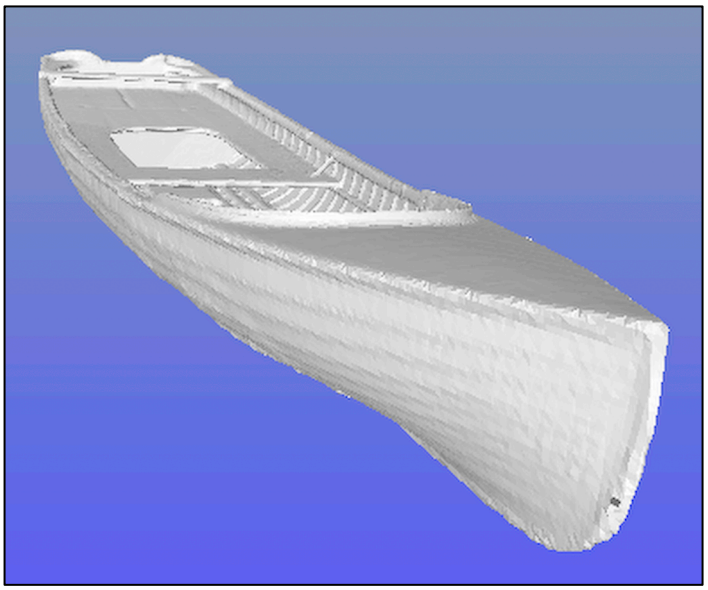
Wisconsin registration number

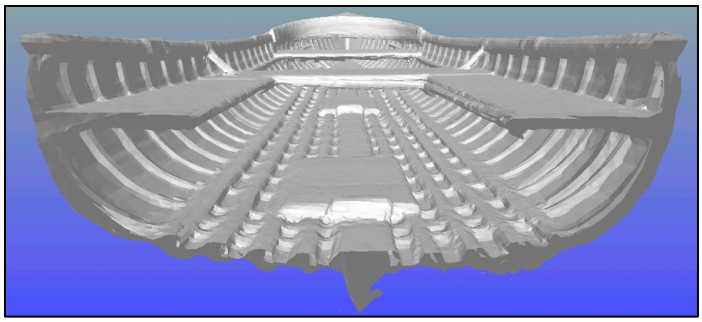


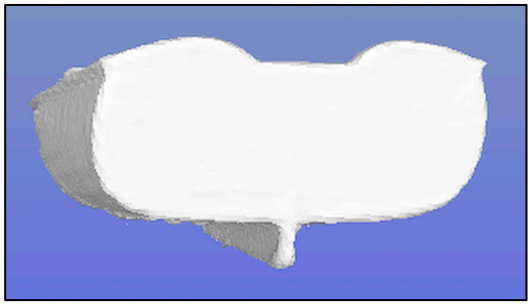
An overview of the Dingle Boat from the stern

The vital statistics linked to Wisconsin registration number 5736 EG indicates it was last licensed by Lucille Moeller in 1989 and the wooden boat is 16.00 feet long (Wisconsin DNR, personal communication, March 6, 2017). The history attached to the DOMB indicates that Fred Dingle gifted the boat to his good friend Bud Moeller in the early 1930s. Moeller left instructions with his wife Lucille to pass the DOMB to Captain William D. Bowell after his death. Therefore, the DOMB became the property of Bowell sometime around 1989 and he donated the boat to the MNHS in 2004. The 'Jos. Dingle Boat Works' name plate was removed from the DOMB by Bowell; he stored it in a tobacco can marked with the initials "F.D.". The can was a Christmas gift to Fred from Bud in 1927 (Bowell 2004). Captain Bowell was the founder of St. Paul's Padelford Riverboat Company. The DOMB is stable and in fantastic condition. MHM suggests the boat remain on its keel, the bottom supported in its entirety to prevent hogging and sagging.

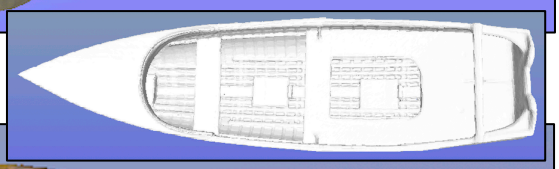


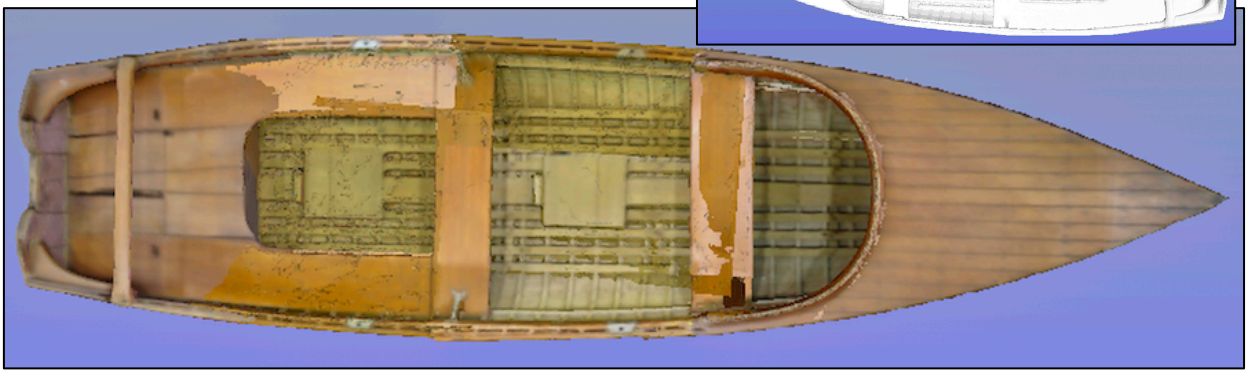






MHM's 3D scans of the Joseph Dingle Boat Works Outboard Motor Boat. The scanning process included several scans saved as separate files. Because of the vagaries in lighting, the color version of the scanned images appears like a patchwork (right and below).

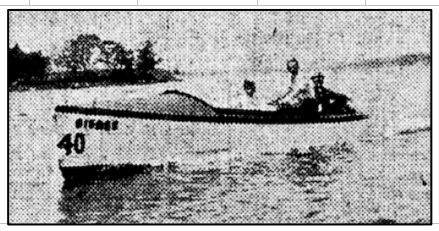
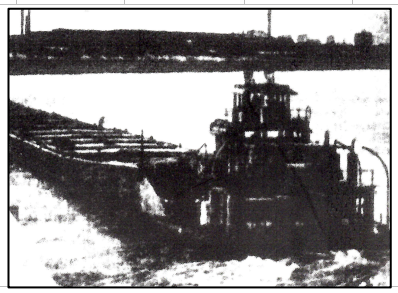




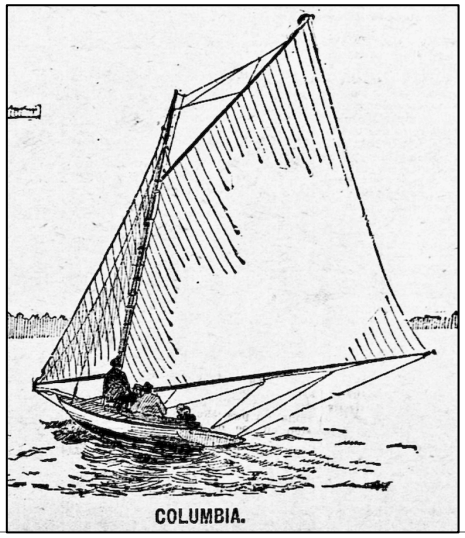
A List of Joseph Dingle Boat Works Vessels

Name	Type	Material	Built	Length	Beam	Depth	Propulsion
Joseph Dingle Boat Works Outboard Motor Boat	**Outboard Motor Launch**	**Wood**	**1910s-Early 1930s**	**16.00'**	**4.00'**	**15.00"**	**Outboard Motor/Oars**
							
Absaraka[17]	Launch	Wood	1902				Gasoline
Ace[18]	Limousine Runabout	Wood	1920	33.00'	5.50'		Thoroughbred 4 Cycle Type B Engine, 32-40 HP, Red Wing Boat Company
Ace *Motor Boating* 1922, 18							
Albatross[19]	Catboat	Wood	1892				Sail
Albert Lea[20]	Raised Deck Cruiser	Wood	1908	55.00'	11.50'		Twin Screw Engines, 60 HP
Albert Lea Cole 1910, 378							
Banshee[21]	1st Class Sloop	Cedar	1895	29.00'			Sail
Bickford Boat[22]	Catboat	Wood	1914	16.00'			Sail

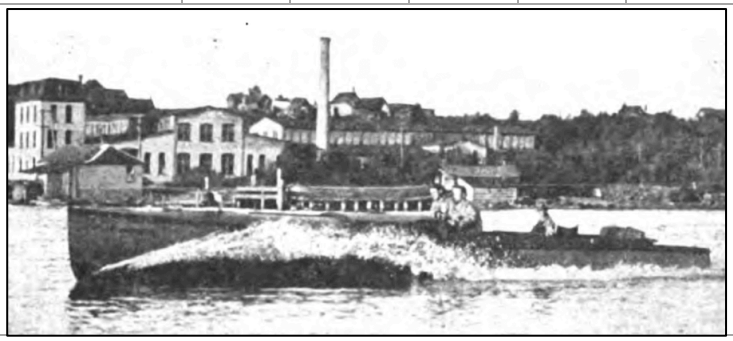
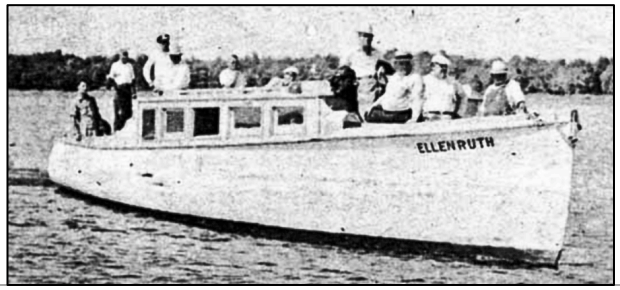
[17] *Minneapolis Journal* 1902d.
[18] *Motor Boating* 1922,18; *Pacific Motor Boat* 1920, 36.
[19] *St. Paul Daily Globe* 1892b,g, 1892i, 1893g, 1894d.
[20] *Evening Tribune*. 11.16.1908; Cole 1910, 378, 380; *Daily Gate City* 1908; *Motor Boat* 1908, 58.
[21] *St. Paul Daily Globe* 1895a-b.
[22] *Daily Missoulian* 1914.

Name	Type	Material	Built	Length	Beam	Depth	Propulsion
Bisbee[23]	Power/Motor/ Auto Boat	Wood	1905	27.00’			4 Cylinder White Gasoline Engine, 20 HP, Globe Iron Works, Minneapolis
Bisbee *Minneapolis Journal* 1905b							
Britannia[24]	Sailboat	Wood	~1894				Sail
Buster Boy[25]	Power/Motor/ Auto Boat	Wood	1904				Gasoline Engine, 20 HP, Globe Iron Works, Minneapolis
Calista[26]	Launch	Oak	1920-1925	42.00’	10.67’		Grey Marine Engine, 85 HP
Cartasca[27]	Towboat	Wood	1944	40.00’	33.00’	6.50’	8 Chrysler Marine Engines, 1160 HP
Cartasca *Republican Herald* 1951							
Catamaran[28]	Sailboat	Wood	<1884				Sail
Chippewa[29]	USACE Screw Launch	Wood	1913	35.00’	5.67’	3.33’	4 Cylinder Capitol Engine, 40 HP, Auto Engine Works, St. Paul
Chippewa[30]	USACE	Wood d	1935	34.00’			Motor

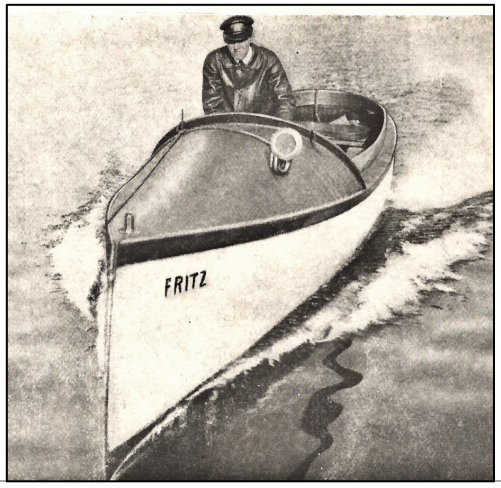
[23]McGinnis 2010, 21; *Minneapolis Journal* 1905a-b; *Minneapolis Tribune* 1905; *Minnetonka Record* 1905; *Motor Age* 1905, 19; *Power Boat News* 1905b, 106.
[24]*St. Paul Daily Globe* 1894f.
[25]*Power Boat News* 1905b; *Minneapolis Journal* 1905b.
[26]Barron County Historical Society ND.
[27]Broehl 1992, 670.
[28]*St.Paul Daily Globe* 1884b.
[29]USACE 1913, 3638, 1914, 4324-4326, 1917, 3928-3929.
[30]*Waterways Journal* 1975, 8.

Name	Type	Material	Built	Length	Beam	Depth	Propulsion
City of St. Paul Rowboats[31]	309+ Rowboats	Wood	~1894-1911+				Oars
Row Boats on Lake Como MNHS-MR2.9SP4.1Clp7 Digitized by MHM							
Columbia[32]	Sloop	Wood	1893	30.00’			Sail
Columbia *St. Paul Daily Globe* 1895b							
Como Park Launch[33]	Launch	Wood	1900				Electric Motor
Cushner Houseboat[34]	Houseboat	Wood	1937	50.00			Gasoline
Cushner Houseboat Divine 2008							

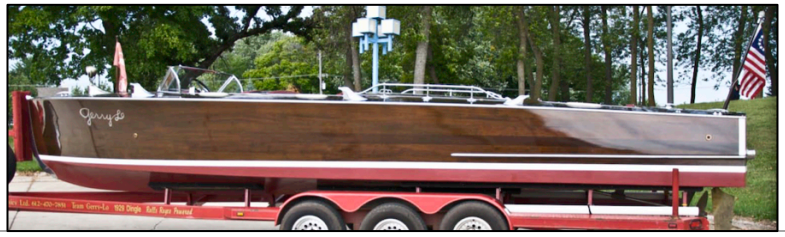
[31] See earlier section.
[32] *St. Paul Daily Globe* 1893d-h, 1894b, 1895a-b.
[33] Warrant 2879, 1902.
[34] Divine 2008.

Name	Type	Material	Built	Length	Beam	Depth	Propulsion
Dick Six[35]	Power/Motor/ Auto Boat	Wood	1909	39.50’	5.33’		6 Cylinder Capitol Engine, 100 HP, Auto Engine Works, St. Paul
Dingle-Capitol[36]	Power/Motor/ Auto Boat	Wood	1909	29.00’	5.00’		6 Cylinder 4 Cycle Capitol Engine, 1,100 RPM, Auto Engine Works, St. Paul
Dingle-Capitol *Power Boating* 1910a, 53							
Dolly Dingle[37]	Motor Boat	Wood	1916	20.00			Gasoline
Elizabeth[38]	Catboat	Wood	1890	20.25’	8.75’		Sail
Ellen Ruth[39]	Launch	Cypress & Oak	1933	42.00’	10.00’		Twin 6 Cylinder Studebaker Engines
EllenRuth City of Wahkon							
Ellen Ruth *Mille Lacs Messenger* 2013.							

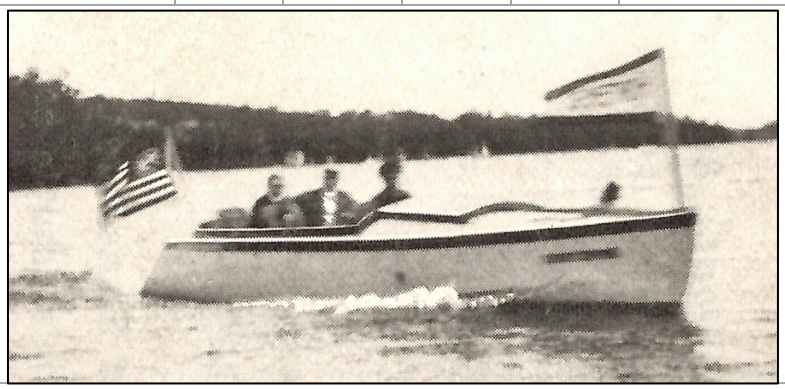
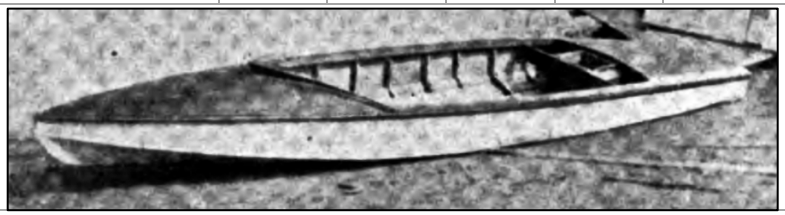
[35] *Motor Boat* 1909a, 64.
[36] Cole 1910, 380; *Motor Boat* 1909b, 37, 1909c, 41; *Power Boating* 1910a, 54, 1910b, 350.
[37] *Open Exhaust* 1916, 10.
[38] McGinnis 2010, 63; *Northwestern Tourist* 1890; *Minneapolis Times* 1896; Mott 1894, 453.
[39] Jenkinson and Roberts 1985; *Mille Lacs Messenger* 1933a-c, 1938; Paul Petty, personal communication, March 13, 2017.

Name	Type	Material	Built	Length	Beam	Depth	Propulsion
Esmeralda[40]	Catboat	Wood	1895				Sail
Finola[41]	Power/Motor/ Auto Boat	Wood	<1910				4 Cylinder Capitol Engine, Auto Engine Works, St. Paul
Finola Cole 1910, 380.							
Fritz[42]	Power/Motor/ Auto Boat/ Runabout	Wood	<1908				Motor
Fritz Joseph Dingle Boat Works ~1920. Brochure MHM Collection Digitized by MHM							
Galatea[43]	Catboat	Wood	1892				Sail
Galena[44]	USACE Screw Launch	Wood	1913	35.00’	5.67’	3.33’	4 Cycle Reverse Gear Engine, 40 HP, Auto Engine Works, St. Paul
Game Warden Boat 1[45]	Power Boat	Wood	1928	26.00’	5.83’		Engines with Autopulse Gasoline Supply System

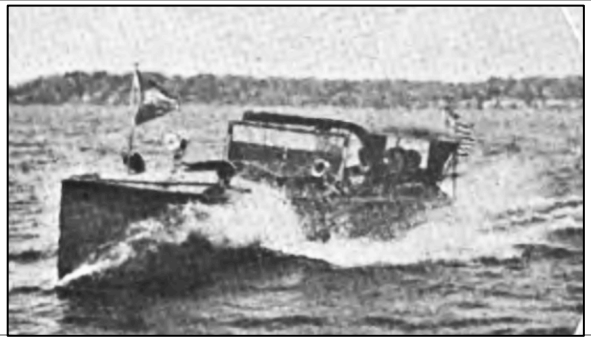
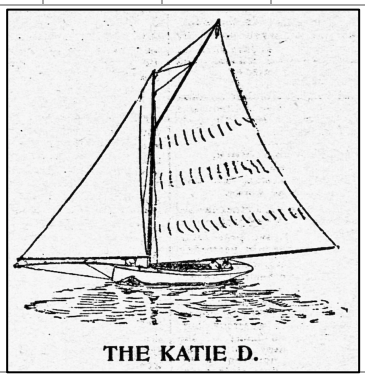
[40] *St. Paul Daily Globe* 1895a, 1895d-e.
[41] Cole 1910, 378, 380.
[42] Joseph Dingle Boat Works ND; Fishman 1989, 41.
[43] *St. Paul Daily* 1892b,d, 1893f-g.
[44] *Rock Island Argus* 1914.9.25; USACE 1914, 4345-4347, 1917, 3928-3929.
[44] *Waterways Journal* 1975, 8.
[45] Dillon 1928, 130.

Name	Type	Material	Built	Length	Beam	Depth	Propulsion
Game Warden Boat 2[46]	Power Boat	Wood	1928	26.00’	5.83’		Engines with Autopulse Gasoline Supply System
Gamma[47]	Sloop	Wood	1904				Sail
Gerry Lo[48]	Triple Cockpit Runabout	Mahogany	1929	30.00’	7.08’		Curtiss D-12 WWI Aircraft Engine
Gerry Lo Mecum Auctions 2010, 64, 67.		 					
Glengarry[49]	Houseboat	Cypress & Oak	1938	48.83’	15.00’	4.80’	Twin V-Drive Chrysler Crown Engines, 92 HP
Glengarry KSTP.com							
Globe Consolidated[50]	Power/Motor/ Auto Boat	Wood	1907	39.92’	5.00’		6 Cylinder, 4 Cycle Doman Marine Engine, 60 HP

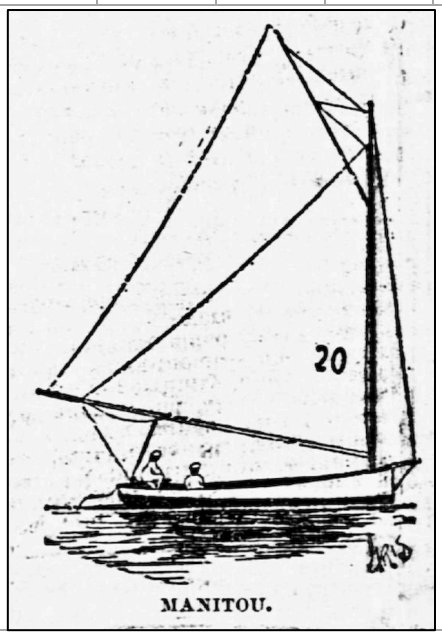
[46]Dillon 1928, 130.
[47]*Minneapolis Journal* 1904b; *St. Paul Globe* 1904a-b.
[48]Mecum Auctions 2010a, 64-67; Schley 2001, 18-23.
[49]Marjanian ND; Woodyboater 2013.
[50]*Boating* 1907b, 54; *Fore ‘N’ Aft* 1907a, 52; 1907b, 27; *Motor Boat* 1907b, 8.

Name	Type	Material	Built	Length	Beam	Depth	Propulsion
Grace[51]	Launch	Wood	1902				Motor
Gusty Glider[52]	Yacht	Wood	1889	20.50’	9.00’		Sail
Hiawatha[53]	USACE Screw Launch	Cypress	1912	35.17’	6.21’	3.50’	4 Cylinder Engine, 35 HP, Auto Engine Works, St. Paul
Hortense[54]	Power/Motor/ Auto Boat/ Runabout	Wood	<1920				Motor
Hortense Joseph Dingle Boat Works ~1920. Brochure MHM Collection Digitized by MHM							
Houseboat[55]	Cruising Houseboat	Wood	1933	125.00’	25.00’		Twin Sterling Petrel Reduction Engines, 360 HP
Houseboat *Motor Boating* 1933 Back Cover							
Hydroplane[56]	Outboard	Wood	1916	18.00’			5-10 HP Outboard Motor
Hydroplane *Open Exhaust* 1917b, 22							

[51] McGinnis 2010, 96; *Minneapolis Journal* 1902b-c; *Minneapolis Tribune* 1902b.
[52] McGinnis 2010 97; *Minneapolis Tribune* 1889; *Northwestern Tourist* 1889.
[53] *Rock Island Argus* 1912; USACE 1913, 4234-4235, 1917, 3928-3929.
[54] Joseph Dingle Boat Works, ND.
[55] *Motor Boating* 1933, Back Cover. This boat may not have been constructed since Dingle listed 2 Sterling engines for sale – cheap – in the February 1934 issue of *Motor Boating* on page 301.
[56] *Open Exhaust* 1917b, 22.

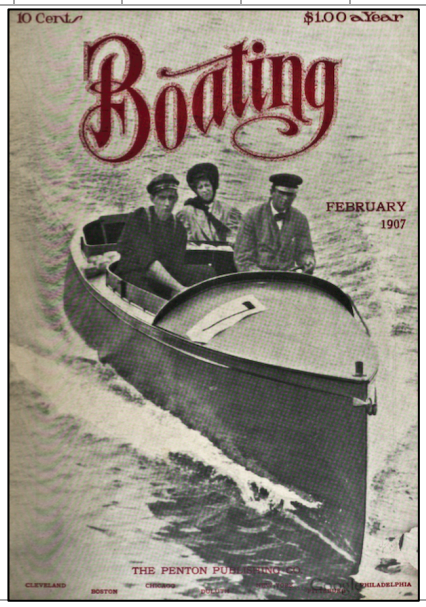
Name	Type	Material	Built	Length	Beam	Depth	Propulsion
Janes Power Boat[57]	Power/Motor/ Auto Boat/ Runabout	Wood	1905				Motor
Jeannette[58]	Power/Motor/ Auto Boat/ Runabout	Mahogany	1909	42.00	5.83’		6 Cylinder Capitol Engine, 100 HP, Auto Engine Works, St. Paul
Jeannette Cole 1910, 380							
Johnson Launch[59]	Launch	Wood	<1916	28.00’			Motor
Katie D[60]	Sloop	Wood	1894				Sail
Katie D *St. Paul Daily Globe* 1894e							
Lapstrake Runabout[61]	Outboard Motor Boat	Wood	1920s-1930s	16.00’			Modern Outboard
Lapstrake Runabout Antique Boat America							

[57] *Power Boat News* 1905b, 106.
[58] Cole 1910, 380-381; McGinnis 2010, 126; *Minneapolis Tribune* 1909.
[59] *Willmar Tribune* 1916.
[60] *St. Paul Daily Globe* 1894c-e.
[61] Antique Boat America Web Site.

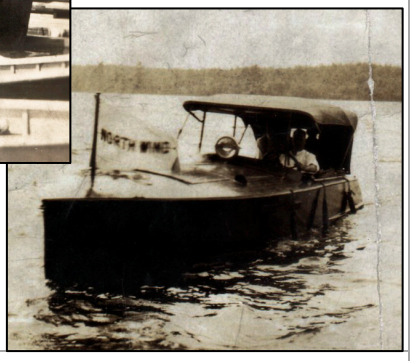
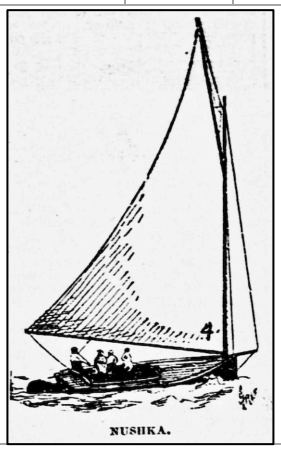
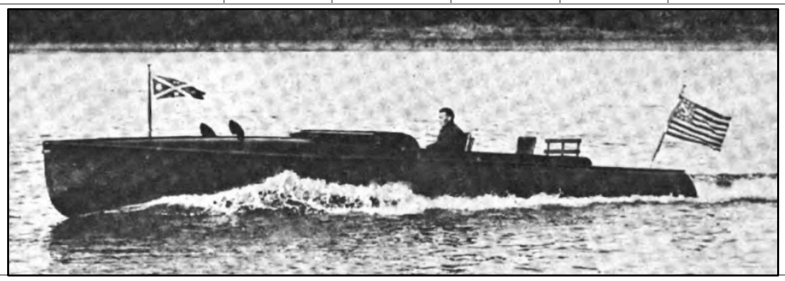
Name	Type	Material	Built	Length	Beam	Depth	Propulsion
Manitou[62]	Catboat	Wood	1889	25.00’	9.50’		Sail
Manitou *St. Paul Daily Globe* 1894a							
Mayo Family Boat[63]	Cabin Cruiser	Wood	1935	36.00’			Red Wing Arrowhead 4 Cycle Engine, 25-45 HP, Red Wing
Merry Monarch[64]	Catboat	Wood	1891				Sail
Minnehaha[65]	USACE Screw Launch	Cypress	1912	35.17’	6.21’	3.50’	4 Cycle Capitol Engine, 36.50 HP, Auto Engine Works, St. Paul
Minneiska[66]	USACE Screw Launch	Cypress	1913	35.17’	6.21’	3.50’	4 Cycle Capitol Engine, 35 HP, Auto Engine Works, St. Paul
Minnewaukan[67]	Launch	Wood	1908				4 Cylinder Engine
Nancy Ruth[68]	Catboat	Wood	<1893				Sail
Nirvana[69]	Sloop	Wood	1895	23.00			Sail

[62] *St. Paul Daily Globe* 1890b-c, 1892c, 1893g.
[63] *Motor Boating* 1935, 93.
[64] *St. Paul Daily Globe* 1891a-c, 1892c.
[65] USACE 1913, 4248-4250, 1914, 4375-4377, 1917, 3928-3929.
[66] USACE 1914, 4375-4377, 1917, 3928-3929.
[67] *Devils Lake Inter-Ocean & Devils Lake Free Press*, 1908.
[68] *St. Paul Daily Globe* 1893c,g.

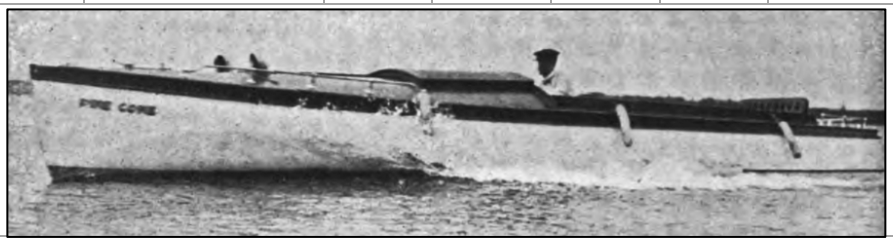
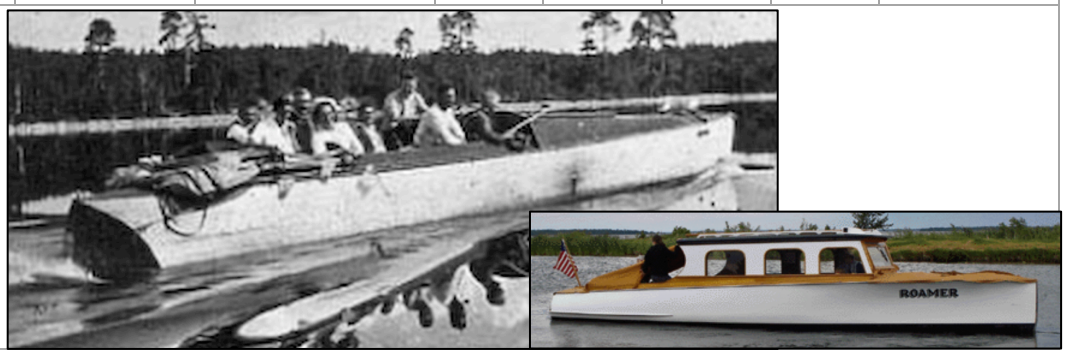
Name	Type	Material	Built	Length	Beam	Depth	Propulsion
Nodin[70]	USACE Screw Launch	Cedar	1915	30.25	5.67’	2.83’	4 Cylinder 4 Cycle L Head Capitol Engine, 20 HP, Auto Engine Works, St. Paul
North Butte[71]	Power/Motor/ Auto Boat	Wood	1906	38.00’	5.00’		6 Cylinder, 4 Cycle Doman Marine Engine, 30 HP
North Butte *Boating* 1907a, Cover							
North Star[72]	Motor Yacht/ Houseboat	Mahogany	1922	120.00’	23.00’		Twin 8 Cylinder Sterling Engines, 400 HP
North Star MNHS GV3.61r68 Digitized by MHM							



[69] *St. Paul Daily Globe* 1895e.
[70] USACE 1915, 4576-4578.
[71] *Boating* 1907a, Cover, 55; 1907b, 54; *Fore ‘N’ Aft* 1907a, 52; 1907b, 27; *Motor Boat* 1907a, 61, 1907b, 8.
[72] *Bismarck Tribune* 1922; Clark 1922, 25; Bureau of Navigation 1923, 248, 1936 921, 1070; Neuzil 2004, 14-15.

Name	Type	Material	Built	Length	Beam	Depth	Propulsion
North Wind[73]	Power/Motor/ Auto Boat	Wood	~1920				Motor
North Wind Courtesy of Steve Hack	  						
Nushka[74]	Catboat/ Sloop	Wood	<1889				Sail
Nushka *St. Paul Daily Globe* 1892d MNHS GV3.61Sp125 Digitized by MHM	 						
Panama[75]	Power/Motor/ Auto Boat	Wood	1915				Gasoline
Panama *Power Boating* 1916, 11							
Peterson Outboard Boat[76]	Outboard Motor Boat	Wood	1914	16.00			Evinrude Outboard Motor

[73] Steve Hack, personal communication, March 29, 2017.
[74] *St. Paul Daily Globe* 1889, 1890b-c, 1893g.
[75] *Open Exhaust* 1915a, 5-10, 1915b, 10, 1915c, 12, 1917a, 6, 1917b, 12; *Power Boating* 1916, 11.
[76] *Daily Missoulian* 1914.

Name	Type	Material	Built	Length	Beam	Depth	Propulsion
Petrel[77]	Catboat	Wood	1895				Sail
Pine Cone[78]	Power/Motor/ Auto Boat	Wood	1909	32.00'/35.00'			30 HP Engine
Pine Cone Cole 1910, 381							
Roamer[79]	Motor/Auto Boat/Launch	Wood	1920	33.00'			Universal 6 Cylinder Engine*, 45 HP
Roamer Miron 2007							
Sailboat[80]	4 Oars	Wood	<1890				Oars/Sail
Salmon Lake Club Rowboat 1[81]	Rowboat	Wood	1914	14.00			Rowboat
Salmon Lake Club Rowboat 2[82]	Rowboat	Wood	1914	16.00			Rowboat
SC-1000[83]	Subchaser	Wood	1942	148.00'	17.00'	6.50'	Twin 8-268A Engines, 1760 HP, General Motors
SC-1001[84]	Subchaser	Wood	1942	148.00'	17.00'	6.50'	Twin 8-268A Engines, 1760 HP, General Motors

[77] *St. Paul Daily Globe* 1895a-b.

[78] Cole 1910, 381; *Bemidji Daily Pioneer* 1909.

[79] *In 1934 Joseph Dingle Boat Works was employed to install a new Universal 45 HP engine, replacing the original power plant. Dingle also replaced the original soft Kenyon Auto Top with another example with increased waterproofing. In turn, the 1934 top was replaced by the current enclosed cabin in 2002 (Miron 2007).

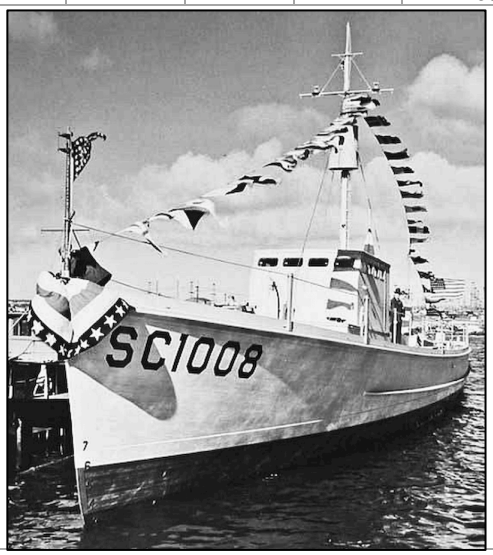
[80] The ad offering this boat for sale listed it as a "a four-oared Dingle rowboat, with sail, to exchange for a light pony cart or buggy in god condition. For particulars address No. 5, Fort Snelling" (*St. Paul Daily Globe* 1890a).

[81] *Daily Missoulian* 1914.

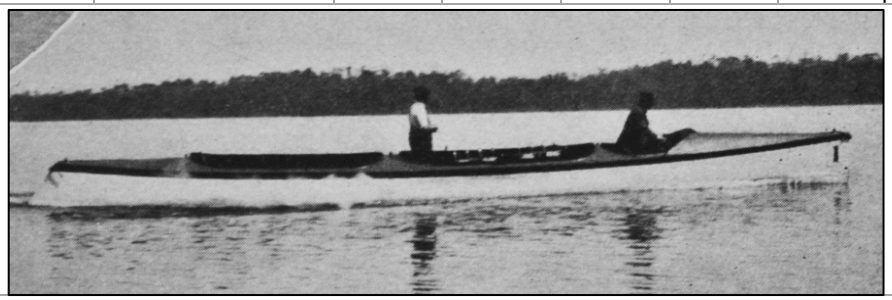
[82] *Daily Missoulian* 1914.

[83] Naval History Division 1976, 735; NavSource Online.

[84] Naval History Division 1976, 735; NavSource Online.

Name	Type	Material	Built	Length	Beam	Depth	Propulsion
SC-1002[85]	Subchaser	Wood	1942	148.00’	17.00’	6.50’	Twin 8-268A Engines, 1760 HP, General Motors
SC-1008 Same Class as *SC-1000*, *SC-1001*, *SC-1002* National Archives							
Schletz Sailboat[86]	Gaff Sail	Wood	1939				Oars/Sail
Sea Breeze[87]	Trunk Cabin Cruiser	Wood	1909				Motor
Secret[88]	Sloop	Wood	1892				Sail
Sinbad[89]	Catboat	Wood	1892				Sail
St. Croix[90]	USACE	Wood	1935	34.00’			Motor
Hunting Boat[91]	Row Boat	Wood	~1930				Oars
Hunting Boat State of Minnesota Stewart River Boatworks 2013							

[85]Naval History Division 1976, 735; NavSource Online.
[86]Schletz Receipt from Joseph Dingle Boat Works, March 10, 1939, www.flicker.com.
[87]Cole 1910, 377; *The Rudder* 1909, 151.
[88]*St. Paul Daily Globe* 1892a,e.
[89]*St. Paul Daily Globe* 1892e, 1893a.
[90]*Waterways Journal* 1975, 8.
[91]Stewart River Boatworks Facebook page. The Boatworks was restoring the boat at the request of the State of Minnesota for Tettagouche State Park.

Name	Type	Material	Built	Length	Beam	Depth	Propulsion
Trimbelle[92]	USACE Screw Launch	Wood	1913	35.00’	5.67’	3.33’	4 Cycle Reverse Gear, 40 HP, Auto Engine Works, St. Paul
Westman[93]	Power/Auto Boat	Wood	1905	30.00’/36.00’	5.00		Westman Engine, 25 HP, Enterprise Machine Company, Minneapolis
Whale/ Valkyrie[94]	Sloop	Wood	1892				Sail
White[95]	Power/Motor/ Auto Boat	Wood	1905	41.00’+	6.00’		6 Cylinder White Engine, 80 HP, Globe Iron Works, Minneapolis
White Ellis 1906, 31							
YMCA Centerboard Boat[96]	Row/Sail/ Motor	Wood	1916				6 Oars/Sail/ Outboard Motor
Zumbro[97]	USACE Screw Launch	Wood	1913	35.00’	5.67’	3.33’	4 Cycle Capitol Engine, 40 HP, Auto Engine Works, St. Paul

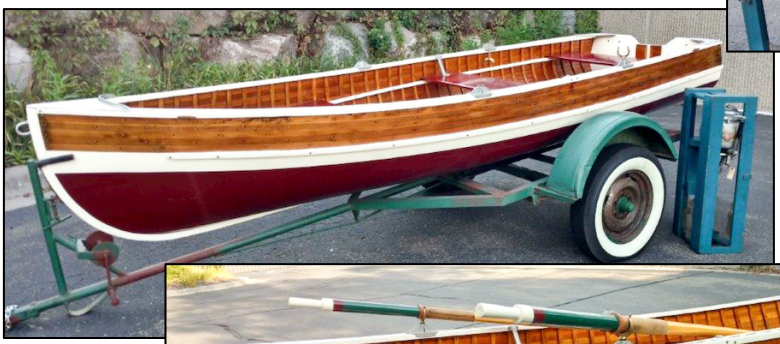
[92]USACE 1913, 3645, 3666, 4275-6276, 1914, 4417-4419.
[93]McGinnis 2010, 267; *Motoring and Boating*. 1905, 209; *Power Boat News* 1905b, 106.
[94]*St. Paul Daily Globe* 1892f,h, 1894d.
[95]McGinnis 2010, 267-268; *Minneapolis Journal* 1905c-f; *Motoring and Boating* 1905, 209; *Power Boat News* 1905a, 53.
[96]*Grand Forks Daily Herald* 1916.
[97]USACE 1913, 3646, 1914, 4426-4428, 1917, 3928-3929.

Cokato Boat Works Outboard Motor Boat
Cokato Museum, Cokato, Wright County

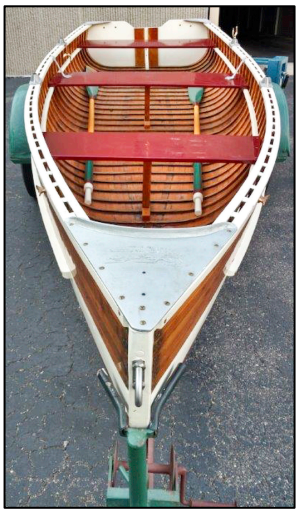
History

MHM first learned of the Indian Cokato Boat Works (CBW) when visiting the Cokato Museum in December 2013.[98] Gordon L. Mattson announced the establishment of the CBW in early April 1948, where he would be constructing "cedar strip boats in 12-foot, 14-foot, and 16-foot sizes. A year later, with the help of brother Milton Mattson, CBW was busy making custom-built watercraft, ordered from people around Minnesota, Iowa, and the Dakotas. The vessels were constructed using ash, oak, and cedar. During 1949 or 1950, the Mattson brothers erected a new Quonset building to house the Cokato Boat and Cabinet Works on land owned by their father, John Mattson, on Highway 12. Pictorial evidence of the inner workings of the CBW suggests the company produced boats for the Larson Boat Company of Little Falls and labeled them as Larson watercraft. Further, another CBW vessel named *Squirt 3* that has survived was recognized in its registration information as a 1951 Larson (*Cokato Enterprise* 1948, 1949; Cokato Museum; Gary Voggesser to Mike Worcester, personal communication, August 16, 2016).

Left: The Cokato Boat Works (Cokato Museum).



Squirt 3
Courtesy of Gary Voggesser



[98]MHM was at the Cokato Museum to document and take a wood sample from a dugout canoe for the Minnesota Dugout Canoe Project.

MHM contends that the CBW took a contract from Larson to construct an unknown number of boats in 1950-1951, stemming from the complete destruction by fire of the Larson Boat Works in Little Falls on December 13, 1949. In 1948, Larson produced 1,700 wooden boats and at the time of the fire, the company was still producing large numbers of wooden boats – their Falls Flyer, inboard utilities, and outboard fishing, duck boats, and pleasure craft among them. Subsidiary Larson Water Craft Company produced aluminum vessels in a separate factory and was unharmed. Larson lost 3 buildings, 400 wooden boats, and many more were damaged in the fire that started in the wood sanding room. The fire spread quickly due to large amounts of flammable varnish, paint, and wood. It is unknown how many watercraft CBW may have built for Larson, but considering the CBW apparently only constructed about 40 watercraft, it could not have been a large number. The CBW was solvent at least through 1952, but by 1955, apparently the brothers were no longer producing boats. Instead, the Mattson brothers established the Mattson Building Company that specialized in constructing steel farm buildings and Quonset huts similar to the one that formerly housed the Boat Works. Hand-crafting small wooden cedar strip boats was labor-intensive and expensive, making them unprofitable when produced on a small scale. Only one other CBW watercraft is known to survive, beyond the Cokato Museum and Voggesser examples, owned by people in North Dakota (*Brainerd Daily Dispatch* 1949; Cokato Museum; *Cokato Enterprise* 1955a-b; Miller 2008; Research Division 1952, 10, 1955 11; Sommers 2000, 21-30).

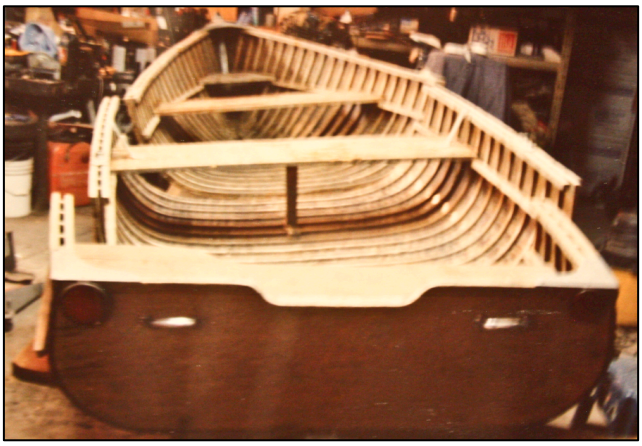
Four wooden Larson boats in the Cokato Boat Works factory (Cokato Mueum).

The Cokato Boat Works vessel from North Dakota. Note the modified stern (Cokato Museum).

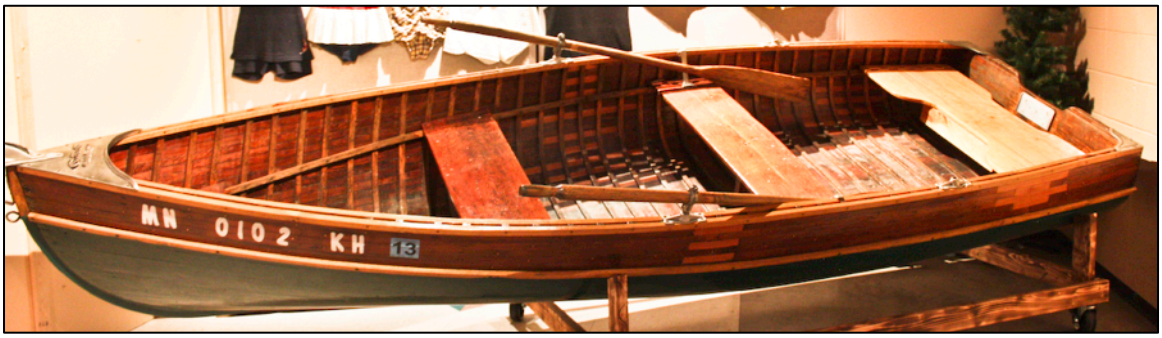
Cokato Boat Works Outboard Motor Boat

MHM documented the Cokato Boat Works Outboard Motor Boat (COMB) on February 1 and 22, 2017 at the Cokato Museum. Bruce Reischl, a restorer of boats and outboard motors, came across the boat in 3 pieces – used as shelves – and acquired it. In 2007-2008, Mr. Reischl restored the boat and then contacted the Cokato Museum to inform the organization of its existence (Miller 2008), and in 2012 Mr. Reischl donated the COMB to the museum. The COMB's wooden hull is 13.50 feet long and 14.00 feet long overall (including the bow roller and anchor lock), 4.50 feet in the beam, with a 17.00-inch depth of hold. The stem consists of a rectangular outer stempost that is curved and attached to the keel. Large bolts driven through the outer stempost attach it to the inner stempost (not seen). An anchor roller with an anchor lock is attached to a bow casting produced specifically for Cokato Boat Works. Joseph P. Fox's anchor roller and lock patent labeled the mechanism as a 'rope snubber' (Fox 1943). A screw eye attached to the stempost and serves as a tow ring. At the stern, the keel s attached to the hull bottom and protrudes from it, square in cross-section. The gunwale has no caprail so the futtocks are visible between the narrow beams that comprise the gunwale; the outer beam acts as a rubrail. Splashrails run along the entire length of the COMB on port and starboard. The hull is comprised of thin cedar wood strip strakes joined end to end, making it carvel-built. The vessel has a wide flat bottom, and the aft section of the boat has slight tumblehome, where the hull narrows from the waterline to the gunwale. The square transom, designed to take an outboard motor, is comprised of 1 wide plank with a thin caprail; it has 2 metal carrying handles and red reflectors attached. The transom

plate, a rectangular metal piece that enhances the transom's strength when the motor is on the boat, is attached to the inner transom face.



Left: The Cokato Boat Works Outboard Motor Boat is three pieces at the beginning of the restoration process. Right: the reunited hull (Bruce Reichl, on file at the Cokato Museum).



The Cokato Boat Works Outboard Motor Boat (MHM).

Inside the hull at the transom, a centerline knee is attached to the boat's bottom and adds strength to the stern. Two horizontal metal knees on the port and starboard quarters on top of the gunwale also add strength. The COMB has thin frames attached to the inner hull, providing rigidity to the vessel. Each frame is one long thin piece of wood that has been curved into a wide U shape. One short longitudinal stringer is attached to the hull bottom near the boat and 2 longitudinal stringers attached to the futtocks on both sides extending from the stern quarters to the bow. Four bench seats rest on the longitudinal stringer, 1 in the bow, 2 amidships, and 1 in the stern. The aft amidships bench also has metal brackets, port and starboard, as additional attachment points to the gunwale. There are 4 metal oarlocks, 2 on each side, aligned with the 2

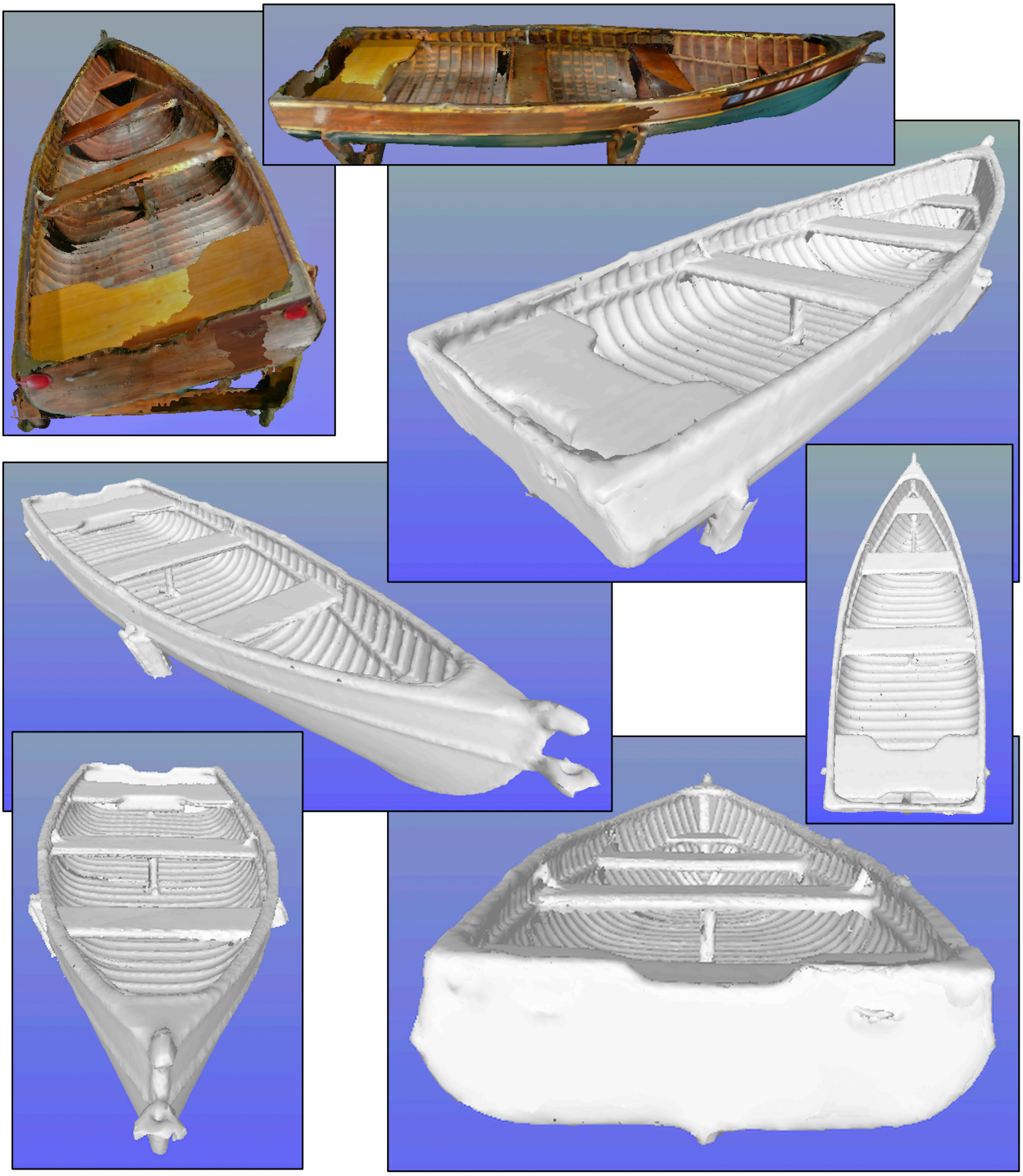
amidships benches. The watercraft is primarily held together with small bronze nails enhanced by slot head screws and a few Phillips head screws in certain areas. The bottom of the hull to just after the turn of the bilge, under the splashrails, is painted dark green and the entire hull has a high varnish finish.

The Cokato Boat Works Outboard Motor Boat (MHM).

The current registration number painted on both sides of the bow is MN 0102 KH and it expired in 2013. This number in the “K” range is in a group of numbers reserved for vessels such as rowboats, canoes, and sailboats that can operate with motors, but have the options of oar or sail propulsion as well. The information in DNR records reflects the nature of the boat: “14’ Cokato 1950, made of wood, last registered 12/31/2013” (John Nordby, personal communication, March 6, 2017). However, this information is only partially correct, stemming from the fact that the boat was taken out of commission and cut into 3 pieces for a time. The original registration number for the COMB, shown in images taken during her restoration, was MN 1792 AC. This number was assigned to the boat in 1959, when the State of Minnesota first required motor boat registrations. The DNR information attached to this license number: “14’ Home 1952, last registered 12/31/1994” (John Nordby, personal communication, March 6, 2017). This information is helpful, since it reveals that the owner of the COMB listed her as a ‘home build’ and not the CBW – regardless of the fact that “Cokato Boat Wks. Cokato, Minn.” is impressed into the bow casting – or did not think it was important. Whether the boat was constructed in 1950 or 1952 cannot be determined at this time. Lastly, Mr. Reischl’s fine restoration work can be discerned due to the use of wood of a lighter shade in those places where he combined the 3 hull pieces into one skillfully integrated whole – a proper act of conservation and restoration of the COMB.

Left: The current registration number on the boat (MHM).

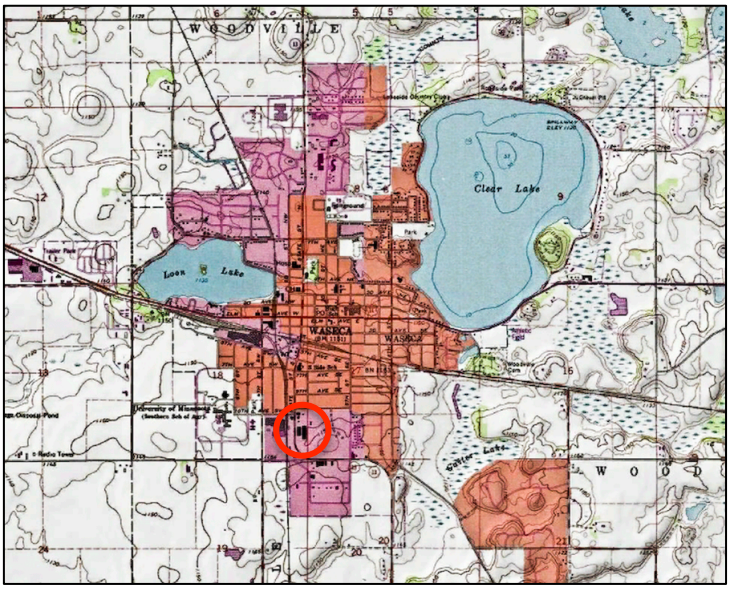
MHM's 3D scans of the Cokato Boat Works Outboard Motor Boat. The scanning process included several scans saved as separate files. Because of the vagaries in lighting, the color version of the scanned images appears like a patchwork (below).



Herter's Model St. Lawrence Outboard Motor Boat (1988.338.1.A-C)
Minnesota Historical Society, St. Paul, Ramsey County

History

MHM first learned of the Herter's Model St. Lawrence Outboard Motor Boat (HSL) when visiting the Minnesota Historical Society (MNHS) warehouse in January 2014.[99] Herter's, Inc., established in 1937 by George Herter, initially occupied the upper level of his father's dry goods store in Waseca. Growing during the 1940s, Herter's manufactured and sold a variety of hunting equipment (including firearms and ammunition), fishing tackle, decoys, other types of sporting goods, and soon – boats – by mail order catalog. The company opened 7 brick and mortar stores[100], but over the decades the company was primarily known for its mail order business and quirky catalogs, written by George Herter with his "Barnum-esque" language. This habit is reflected in the description of "Herter's Aircraft Division, Inc. – World's largest suppliers of aircraft, air missile and air target liquid glass resins". Also, Herter proudly claimed many of his products had earned the endorsement of the 'North Star Guides Association' – an organization that was a figment of his imagination. Further, Herter's catalogs and several custom-casted metal products claimed the company was established in 1893 – the year Edward O. Herter founded his store in Waseca – and not in 1937. Regardless of fantastic claims, it is fact that a Waseca company's production of 400,000-500,000 Herter's catalogs per order made it one of the busiest US commercial printing firms. Herter's other publications considered a variety of topics, including a recipe book that had 15 editions and Hitler's omelet recipe, he claimed. Herter's has been characterized as "the Sears, Roebuck of the outdoor industry...[and] was the inspiration for today's huge mail order and big-box outdoor retailers". This moniker is helpful to place Herter's in an historical context as an innovator in American commerce. However, over-extension and other circumstances pushed the company into bankruptcy in 1977. Cabela's acquired the Herter's brand and it still embosses ammunition boxes and other products (Collins 2008; Copyright Office 1957, 1118; Smith 2015).



Left: USGS Map of Waseca with the Herter's, Inc. factory circled in red (1964). Below: Aerial image of the Herter's factory in July 1951 (John R. Borchert Map Library)

[99]MHM was at the MNHS to document and take a wood sample from a dugout canoe for the Minnesota Dugout Canoe Project.
[100]The stores were located in Waseca and Glenwood, MN, Mitchell, SD, Beaver Dam, WI, Iowa City and Iowa Falls, IA, and in Olympia, WA.

Herter's Boats and Boat-Building Supplies

By 1949 the company sold boat-making supplies, including "Herter's *Famous* Blue Prints" for several types of wooden fishing and hunting boats – and water shoes. Water shoes appear to be thin wooden planks attached to the feet and designed "by a foreign power for moving fully equipped troops quickly and safely over inland water and swamps". Further, by 1951 the company sold and advertised "new life for old boats", promoting the sale and use of fiberglass fabric and resin to preserve and protect wooden hulls. Herter's further touted their fiberglass application process with claims that their "Fiberglas has 5 times the tensile strength of steel...will stop a bullet, is rotproof, wormproof, corrosionproof, non-deteriorating, permanently colored if desired". Other watercraft-related supplies in Herter's catalogs include their "Famous Dull Duck Boat Paint", "Famous Concentrated Marine Boat Cement and Crack Repairer", marine glue, and canvas waterproofer, filler, and shrinker, fiberglass hull patching kits, metal safety boat stabilizers, metal oarlocks, wooden oars and copper oar tips. By 1954, Herter's promotion of their chrome fiberglass cloth and liquid glass led to the production of their own line of watercraft – using wood or chrome fiberglass to construct the hulls (Herter's Inc. 1949, 74-77, 1951, 37-43; *Motor Boating* 1952a, 120-121, 1952b, 104, 1954, 379).

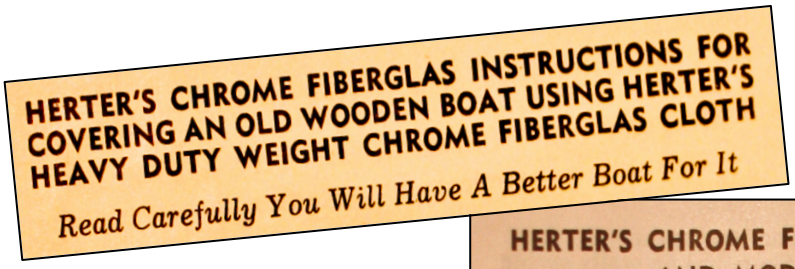
Herter's advertisements promoting boats and boat maintenance products (*Motor Boat* 1952, *Motorboating* 1954, 379, *Popular Science* 1957, 85, 1959, 245

The Waseca factory's address was 116½ State Street in Waseca by 1949 (and possibly earlier), was registered with the State of Minnesota as the 'Herter's Hunting Equipment Plant' in 1952 and 1955, described as a company manufacturing "fishing tackle and hunting equipment, including decoys" – no mention of boats specifically. However, in 1956 Herter's published a detailed account of their chrome fiberglass process that plated spun fiberglass with chrome. Herter's produced fiberglass by melting glass marbles, subjecting the liquid glass to air blowers to form the melted glass into filaments that were wound around a drum, and then the fibers were brought together into one thread and collected onto spools. The spools were heated to remove starch and at this point, the glass fibers were coated with chrome that "gives the glass fibers a permanent coat which tends to shed moisture and most important of all makes the Resinote[101] when applied stick tightly to the glass. Herter's evidence that chrome fiberglass boats were made from "the one material from which the best boats are being built" was the acceptance by the US Navy, Army, Air Force, and Marine Corps to utilize the material to manufacture boats, combat helmets, flak jackets, and Infantry combat armor. A Navy report stated that chrome fiberglass "saturated with plastic resins simply cannot leak. The only water that can come in, is spray or rain...the chrome glass fiber laminated hull will not stretch, swell, shrink, or otherwise change its shape or increase in weight, nor will it oxidize (rust)". Further, the Navy determined that the smooth hulls increased a boat's speed and the lack of fasteners – wood screws – enhanced the hull's strength. Two test boats, one partially buried on a beach for 1 year and other left to soak in water – and ice during the winter – for 2 years, experienced no changes. Herter's sold chrome fiberglass boat covering kits through the specialized catalog – along with wood and chrome fiberglass boats. This addition to the company's manufacturing enterprise was reflected in their 1957 business listing: "Herter's Inc., George L. Herter, fishing tackle, gunstocks, fly tying equipment, shotgun chokes & ventilated ribs, reloading equipment and components, decoys, game calls, fiberglass boats & boat coverings, marine hardware" (Herter's Inc. 1956, 3-4; Research Division 1949, 204, 1952, 68, 1955, 65, 1957, 61).

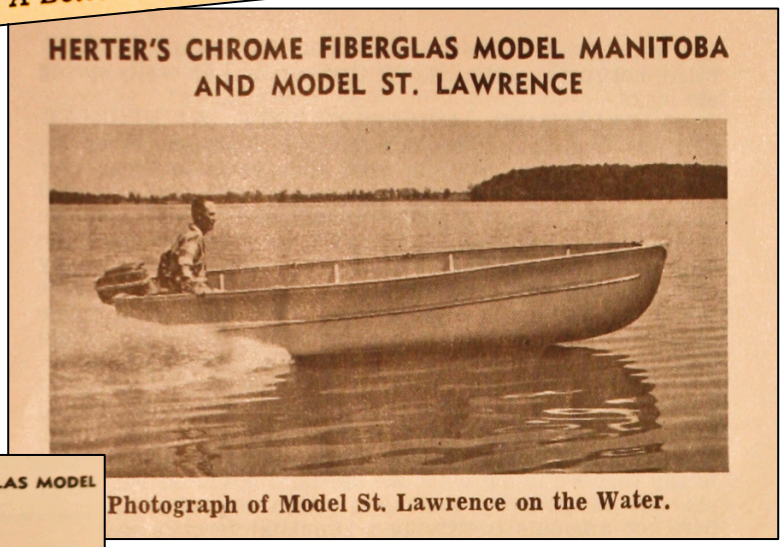
The Herter's, Inc. factory complex still exists south of downtown Waseca (Google Earth 2015).

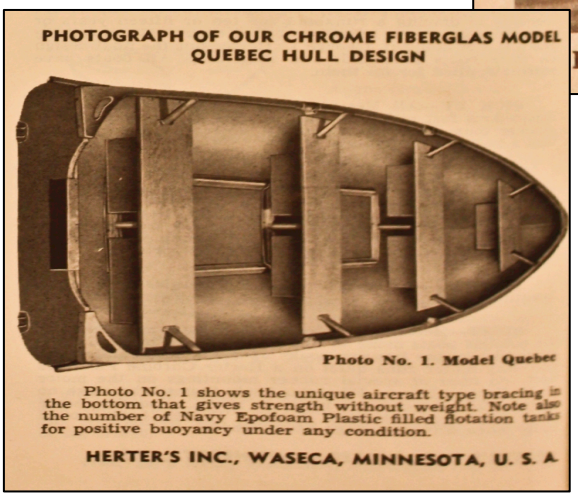
[101] Resinote is Herter's own brand of resin used to manufacture fiberglass boats.

Therefore, Herter's, Inc. began manufacturing boats in their Waseca factory in 1956. That year, the company offered 5 open hull chrome fiberglass outboard motor boat models: Canada (12 foot), Hudson Bay (14 foot), Manitoba (14 foot), St. Lawrence (16 foot), and Quebec (16 foot). Herter's also offered the hulls of the Canada, Hudson Bay, and Quebec models without the aluminum benches, gunwales, stringers, and other fittings, intended for customers who preferred to customize their boats, or use them as molds to create their own fiberglass vessels. Models Hudson Bay and Quebec could be ordered with a 'duraluminum'[102] foredeck and lifting handle or an amidships deck for an additional charge. Models Manitoba and St. Lawrence have deeper hulls and are wider in the beam than the Canada, Hudson Bay, and Quebec models. The open hulled chrome fiberglass models had duraluminum fittings, including hollow keels, benches, stringers, and extruded duraluminum gunwales. All 5 models could be painted tanager red, jet black, or marine green for an additional cost – otherwise the chrome fiberglass hulls were delivered in their post-production translucent state (Herter's Inc. 1956, 23-29).



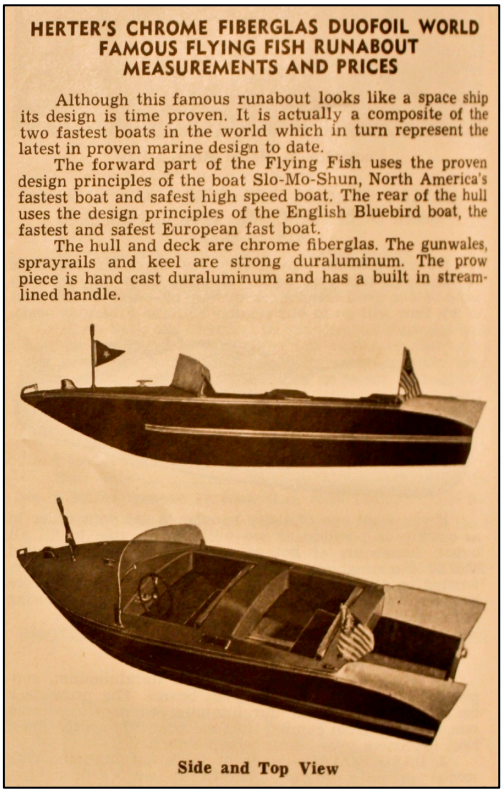
Herter's specialized catalog featured images and long explanations about why everyone should buy their boats or use their chrome fiberglass to fix their boats (Herter's, Inc. 1956, 10, 24-26, digitized by MHM).





[102] Duraluminum was a trade name for an early form of aluminum alloy. See pages 65-67 for examples of Herter's boats.

Also in 1956, limited numbers of Herter's outboard runabout models Mark III (14 foot) and Mark IX (16 foot) were offered for sale. These chrome fiberglass boats had foredecks, steering wheels, and 2 cockpits. Herter compared their sportier boat, the "Duofoil World Famous Flying Fish Runabout", to a spaceship with its chrome fiberglass hull, duraluminum fittings, and port and starboard fins. Double-ended and square stern canoes, as well as duck and goose boats, rounded out the 10 models of chrome fiberglass watercraft offered for sale in 1956 (Herter's Inc. 1956, 25-26).



HERTER'S CHROME FIBERGLAS DUOFOIL WORLD FAMOUS FLYING FISH RUNABOUT MEASUREMENTS AND PRICES

Although this famous runabout looks like a space ship its design is time proven. It is actually a composite of the two fastest boats in the world which in turn represent the latest in proven marine design to date.

The forward part of the Flying Fish uses the proven design principles of the boat Slo-Mo-Shun, North America's fastest boat and safest high speed boat. The rear of the hull uses the design principles of the English Bluebird boat, the fastest and safest European fast boat.

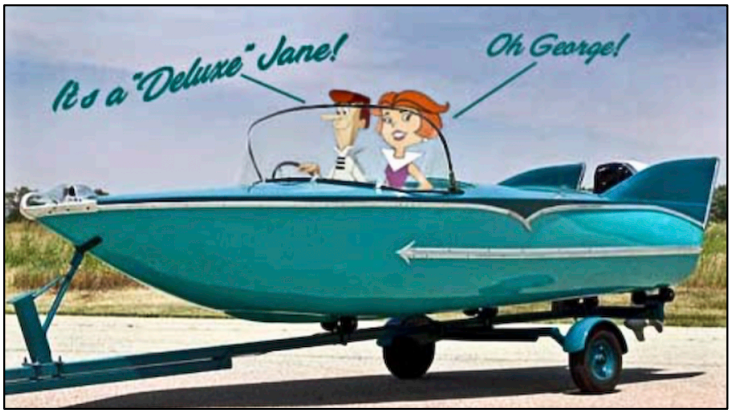
The hull and deck are chrome fiberglas. The gunwales, sprayrails and keel are strong duraluminum. The prow piece is hand cast duraluminum and has a built in streamlined handle.

Side and Top View

Right: Herter's Mark III and IX in 1956 (Herter's, Inc. 1956, 25).

HERTER'S CHROME FIBERGLAS MARK III AND MARK IX RUNABOUTS. $900 RUNABOUTS FOR $267.00

We will produce only a very few Mark III and Mark IX runabouts this year as we produce them only to keep some of our good employees during off seasons and most of this time will go to our regular Chrome Fiberglas boats.



The Herter's Spaceship, the Duofoil World Famous Flying Fish Runabout, owned by the Jetsons (Herter's, Inc. 1956, 26; Woodyboater.com).

However, Herter's 1956 watercraft manufacturing team also offered wooden boats to their customers who preferred wood instead of fiberglass. MHM suspects the thinness – and the translucent nature of the un-painted examples – of the entirely chrome fiberglass hulls might have not inspired confidence in some sportsmen and pleasure boaters. The wooden boats were constructed of marine plywood, white oak, or mahogany, and were shipped with a chrome fiberglass kit with enough material for the new owner to cover the wooden vessel: models Fort Francis Voyageur (12 foot), Sioux Duck Boat (12 foot), Winnebago Rice Boat (12 foot), and Cree Pike (14 foot). Herter's also sold boat trailers to accommodate 16 foot long boats or less, canvas boat covers, oars, cleats, chocks, oarlocks, anchors, bow rollers, bow lights, spotlights, steering wheels, throttle controllers and cables, detachable seats, carrying handles, transom plates, outboard motor locks, anchor lines, hull bumpers – and the list goes on, right to pennants and flags. Lastly, the company still sold watercraft blue prints, first offered in 1949 (Herter's Inc. 1956, 30-47). In 1957, Herter's continued to manufacture the open hull chrome fiberglass watercraft with the translucent hulls (Hudson Bay, Quebec, Canada, Manitoba, St. Lawrence) and expanded the choices of sporty chrome

fiberglass and duraluminum runabouts: Mark III, Mark IV, Mark IX, Flying Fish, and El Dorado Rocket. The port and starboard quarter fins on the Flying Fish and El Dorado Rocket grew larger and larger after 1956 (Knauff ND).[103]

Herter's Model St. Lawrence Outboard Motor Boat

MHM documented the HSL on February 8, 15, 17, and March 1, 8 and 22, 2017 at the MNHS warehouse. The HSL's hull is 15.50 feet long, 64.50 inches in the beam, with a 25.00-inch depth of hold, and a wide flat bottom. Herter's listed the length of the HSL as 16.00 feet long and 64.00 inches wide (Herter's 1956, 26). The .50-inch beam and part of the 6.00-inch hull length difference are attributed to the warping of the starboard side of the hull that has affected the length and beam of the watercraft. However, the warping does not account for more than 1.0-inch of the difference; MHM attributes the other 5.00 inches to the habit of boat-builders to often round-up hull length measurements. The chrome fiberglass hull was formed using the female mold method; the fiberglass fabric was laid over the mold and covered with resin to form it to the mold and harden the cloth. An extruded duraluminum gunwale and hollow keel help with hull rigidity. Four angle sockets attached to the gunwale were designed to take the French Canadian oarlocks that are attached to the 2 wooden oars associated with the boat (Herter 1956, 34). It is unknown if the oars are original to this boat, although the oarlocks are of Herter's manufacture. Two longitudinal duraluminum stringers attached to the inner hull bottom on both port and starboard are connected to each other with 5 floor-like athwartships braces. The HSL has 4 duraluminum benches with 8 seat braces that attach them to the gunwale on both port and starboard.[104] The gunwale supports the small front seat bench, but 3 stanchions attached to the floor-like braces hold up the 3 aft-most benches. Under each bench, 'air tank' chambers are formed of square U-shaped duraluminum, each filled with rectangular pieces of 'Navy Epofoam plastic' – flotation foam (Herter's 1956, 23). A stern knee[105] attached to the inner hull bottom provides rigidity and stability at the transom. The top edge of the knee is inter-locked with a neoprene and aluminum transom plate and caprail that Herter's claimed was "quiet, vibration proof with all motors. Unconditionally guaranteed the quietest, most vibration free boat in the world" (Herter's 1956, 22). Stern castings with carrying handles attached at the gunwale level on port and starboard provide further strength. Hollow duraluminum splashrails are attached to the outer hull on port and starboard. The HSL has a bow casting with a handle and an optional bow eye bolt that would serve as a towing ring or anchor line guide.

MHM's Kelly Nehowig and Christopher Olson measuring the Herter's Model St. Lawrence (MHM).

[103] See pages 65-67 for examples of Herter's boats.
[104] The Herter's catalog labels the seat brace "American Type Made of Galvanized Rustproof Steel" (Herter's 1956, 36).
[105] The Herter's catalog labeled the stern knee a "Hand Made English Type Streamline Transom Knee" (Herter's 1956, 36).

Details of the St. Lawrence Model (MHM, Kelly Nehowig).

Scuffs and marks are indicators of wear on the hull over the decades. At the starboard quarter inside the hull, rust stains indicate the location of the gas stank for the outboard motor. On the starboard side amidships at the turn of the bilge, a 2-layered square patch of fiberglass and resin represents a hull repair. Larger and more obvious repairs are located on the port transom. A long rectangular unpainted fiberglass patch is applied to the outer hull at the junction of the transom and the port side. On the port side transom, another repair is comprised of 2 fiberglass strips sealed to the hull with white resin or caulking, and left unpainted. The junction repair provides helpful evidence pertaining to the working life of the HSL because it is applied under the port side splashrail. This detail confirms that whomever conducted the maintenance on the HSL removed the splashrail during the process and this information is significant because of the boat's hull color. When manufactured, Herter's chrome fiberglass boats were translucent, but the factory would paint the hull for an additional cost. According to DNR records, the HSL was constructed in 1956 (John Nordby, personal communication,

March 6, 2017), the first year that Herter's constructed boats. However, Herter's offered 3 hull colors for Model St. Lawrence in 1956: jet black, marine green, and tanager red. The HSL hull color, however, does coincide with one offered by Herter's at least by 1969; it is called 'dead grass'. MHM suggests the boat might have been translucent for many years and the owners purchased a supply of dead grass paint from Herter's and painted it themselves. One piece of evidence supporting this theory is the uneven application of the paint in some places on the outer hull, where it has nearly worn off. Regardless, whoever painted the boat after it left the factory took care to remove the metal attributes prior to painting the hull.

Repairs to the hull of the Model St. Lawrence (MHM).

A Herter's Boat Color Chart (Herter's, Inc. 1969).

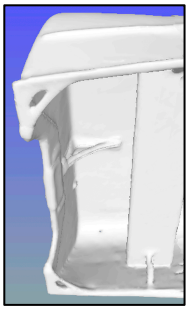
The HSL's registration number, seen on the starboard and port bow, is MN 4042 AB; this number was assigned to the boat in 1959 when the State of Minnesota first required motor boat registrations. An aluminum plaque attached to the inner hull on the port side forward says 'MINNESOTA LICENSED BOAT PERMANENT NO. 51896 DO NOT OVERLOAD BE SAFE STAY WITH BOAT'; the origin of this metal plate is unknown. Other on-hull evidence recording the life of the HSL includes remnants of older Minnesota-shaped year validation stickers near the registration number, including orange (1977-78-79), yellow (1980-81-82), and blue (1983-84-85). The latest sticker, a

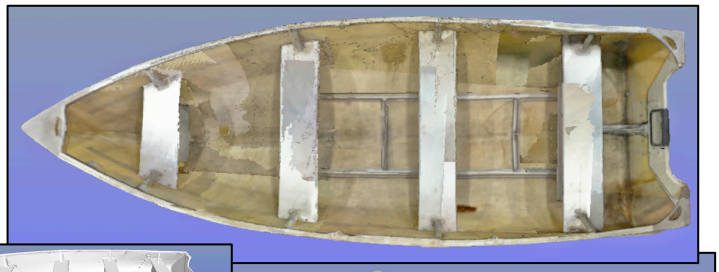
1988 light-colored square, confirms the DNR records: “16’ Herters 1956, made of fiberglass, last registered 12/31/1988” (John Nordby, personal communication, April 6, 2017). Over the decades, the hull’s registration number has been applied and re-applied to the hull as evidenced by a surviving ‘4’ decal underneath the ‘N’ on the port side and the outlines of other numbers as well. The latest registration decals were adhered to rectangular plexiglass pieces that are attached to the port and starboard bow with screws. Interestingly, the port side plexiglass piece has trapped dried leaves and other detritus underneath it; MHM contends the owners applied the plexiglass in the Spring of 1986 when the square sticker was valid, after leaving the hull outside since the autumn of 1985. Lastly, the bow casting of the HSL has proven to be from a different model of Herter’s boat – a Model Hudson Bay. Hudson Bay chrome fiberglass boats were 14.00 feet long, 55.00 inches in the beam, and 20.00-inch deep – much different than the HSL. Further, the Model Quebec was 16.00 feet long like the HSL, but had a 56.00-inch beam and was 23.00-inch deep – much less substantial than the HSL (Herter’s 1956, 24). The HSL spent over 4 decades on the waters of Lake Minnetonka in Hennepin and Carver Counties, and East Fox Lake in Crow Wing County before its donation to the MNHS in 1988 (MNHS 1988).

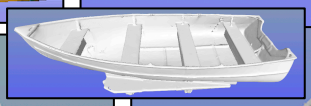
Above: The Herter’s Model St. Lawrence’s registration number and identification plaque (MHM).

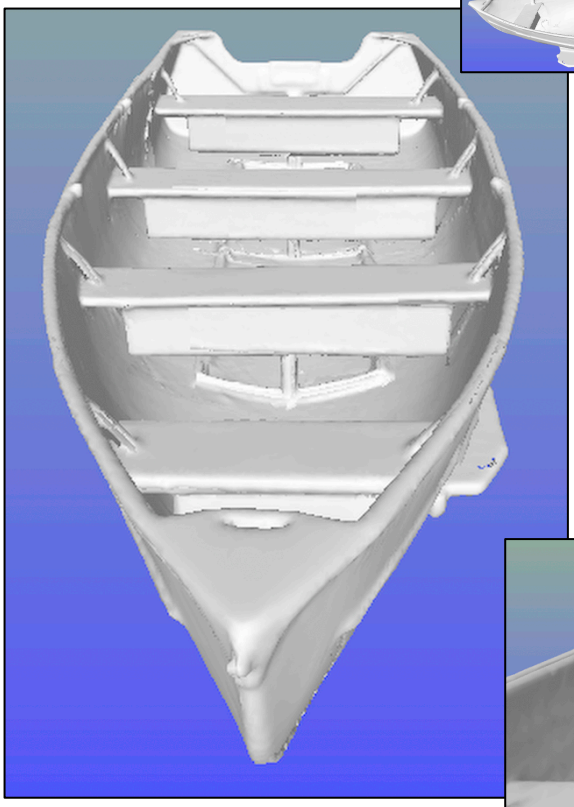
Left: The bow casting that says “Model Hudson Bay” instead of “Model St. Lawrence” (MHM).

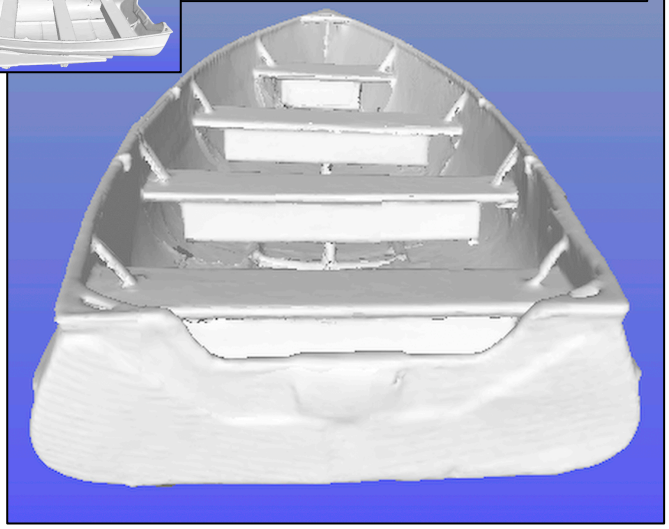
MHM's 3D scans of the Herter's Model St. Lawrence Outboard Motor Boat. The scanning process included several scans saved as separate files. Because of the vagaries in lighting, the color version of the scanned images appears like a patchwork (left and below).

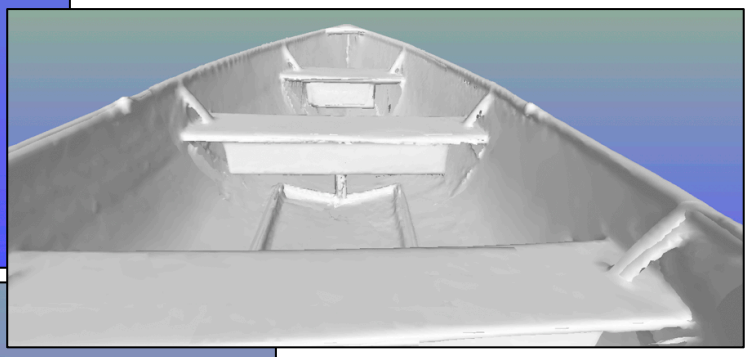


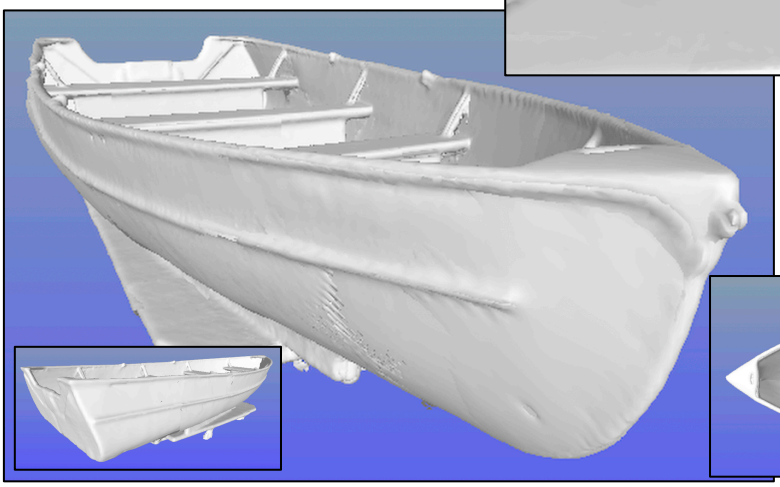


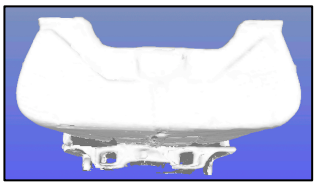


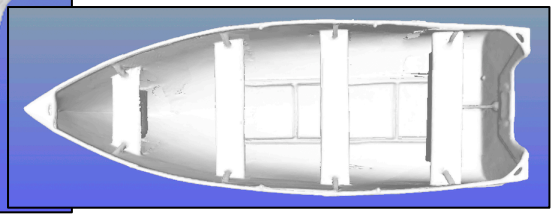












Examples of Herter's, Inc. Boats

Model St. Lawrence

americanlisted.com

offerup.com

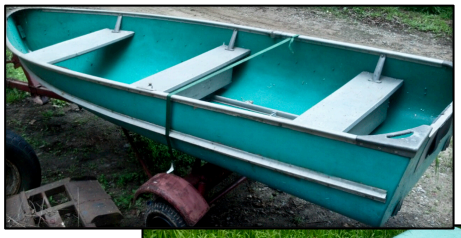
jlyforums.com

1959

smartmarineguide.com

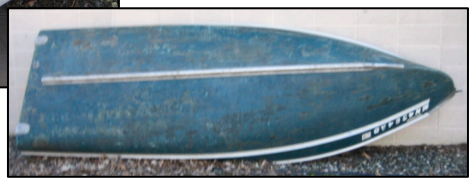
Model Hudson Bay

wyolist.com



fiberglassics.com

merrillsauction.com



Waseca County Historical Society
(Joan Mooney)

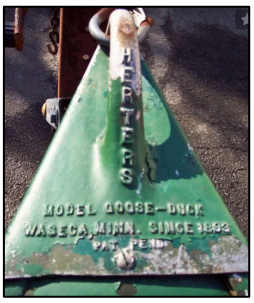
Model Quebec

arcadiainc.wordpress.com

k-bid.com

Model Goose-Duck

photobucket.com



Mark V Runabout

forums.iboats.com

Flying Fish Standard

ronsusser.com

Duofoil World Famous Flying Fish Runabout

forgottenfiberglass.com

Duofoil World Famous Flying Fish Runabout

El Dorado Rocket Runabout

boats-from-usa.com 1957

Conclusions

To more fully understand the cultural information 5 small watercraft documented during the MSC Project provides, it is helpful to consider the boats within their historical contexts. The Ramaley Boat Company was a prolific and long-established boat works at the time of the FFRB's construction. Combining the inventory and facilities of the Moore Boat Works on Lake Minnetonka in Wayzata in 1912 strengthened Ramaley's business in Hennepin County. Historical records pertaining to Ramaley-built boats, particularly photographs and surviving catalogs – along with the nautical archaeological record – reveal the wide range of vessel types the company designed and constructed. The diversity of boat designs offered by the company indicates their broad customer base: fishermen, hunters, sail and motor pleasure boaters, sail and motor racers, and houseboat enthusiasts. The FFRB, as one of the simpler forms of Ramaley vessel, is one of the most-overlooked historic watercraft: a small wooden fishing boat. Small wooden fishing boats of the 19th and early 20th Centuries undoubtedly out-numbered all other types and sizes of watercraft built in Minnesota. The basic commonality of small wooden boats, and often the lower quality of wood that comprised the hulls, has led to a dearth of this vessel type in museum collections. However, as MHM conducts underwater archaeological investigations in more Minnesota lakes, additional small boats will be identified – preserved on the bottoms of our cold freshwater lakes. Additionally, at least one larger Ramaley-built boat is an identified wreck on the bottom of Lake Minnetonka – the Ramaley Family Motor Boat Wreck (21-HE-490) – adding to the body of known Ramaley watercraft to still exist.

A crew of Mille Lacs Band of Ojibwe boatwrights constructed the IOMB and the craftsmanship exhibited in the hull's components is evident. The use of the Indian Trading Post Boat Works vessels within the business of the Post as part of the Lake Mille Lacs economy was a form of seasonally sustainable commerce. The Depression-era employment of Mille Lacs Band members as boatwrights, painters, and fishing guides benefited the people locally. Further, the sale of boats beyond Lake Mille Lacs strengthened the Ojibwe economy through increased production – and possibly led to the survival of the IOMB. It is hoped additional products of the Indian Trading Post Boat Works are identified, both in dry storage and on the bottom of Minnesota's lakes. Regardless of decades of storage in an uncontrolled environment, the IOMB is stable and will continue to survive in its current situation.

Significant numbers of antique boat collections are aware of the long history of the Joseph Dingle Boat Works around the country, particularly the story of the *Gerry Lo*. However, few Minnesotans are aware of the Dingle Boat Works, its longevity, the diversity of the watercraft it designed and offered for sale – and how few Dingle-built vessels have survived. During the maritime historical research process, MHM was impressed by the prolific nature of the company, particularly their design and production of fast catboat and sloop racing yachts and motor 'auto' racing boats. From row boats to sailboats to power racers to houseboats to subchasers to towboats, three generations of the Dingle family produced well-designed and constructed watercraft on the banks of the Mississippi River in St. Paul for 69 years. During the MSC Project, MHM confirmed the survival of 7 Dingle-built vessels and until recently, 6 of them were still in Minnesota. To date, no Dingle wrecks have been confirmed and identified on the bottom of any lake or river in Minnesota or the United States. With these facts recognized, the continued

survival of the DOMB greatly enhances our shared maritime history and in its current circumstances, this Minnesota legacy is assured.

The three known examples of the short-lived Cokato Boat Works watercraft to have survived, out of the 40 or so small vessels the company produced, greatly enhance Minnesota's maritime history. The Mattson brother's brief stint into boatbuilding produced sturdy and good-looking wooden watercraft at a time when aluminum and fiberglass were beginning their dominance in the post-World War II personal watercraft market. The production of handcrafted wooden boats on a small scale was impossible to sustain – regardless of the probable Larson Boat Company subcontract following the 1949 fire. However, the continued use of the Cokato Boat Works vessels into the 2010s is a testament to their quality construction and design.

Contrastingly, Herter's, Inc. produced inexpensive watercraft in a factory setting, primarily out of fiberglass. Apparently Herter's did not produce a set number of watercraft per year or per season, regardless of their catalog offerings. However, the longevity of known lightweight Herter's chrome fiberglass boats supports the maker's contention that like all of their products, their watercraft were world famous, unsinkable, corrosion-proof, and rot-proof. Herter's, Inc. and its plethora of diverse offerings of sporting goods was the beginning of the mail-order catalog industry as well as the 'big box' nature that late 20th Century commercial endeavors would adopt. This business practice did not help or hinder the production of watercraft since Herter's produced boats and canoes that could be ordered as a base model or with additional gear, at very cheap prices.

The preservation of the wooden-hulled FFRB, IOMB, and DOMB into the 21st Century, at ages of approximately 85-110 years old, is a tribute to the Ramaley, Trading Post, and Dingle firms, and the significance of Minnesota boat building and design. On a smaller scale, the COMB represents boat design and construction knowledge at a time when that ability was being replace by technological advancements. On the other hand, the HSL represents one of the 'future' conditions of boatbuilding; not in innovative design or quality, but in the production of cheaper watercraft out of durable materials. Further, considering the great numbers of boats produced by the long-lived firms of Ramaley, Dingle, and Herter's, to have 3 of 40 Cokato Boat Works and 1 of 200 Indian Trading Post Boat Works examples survive is fortunate for our shared maritime cultural heritage. Even more importantly, the donation of the COMB and IOMB – along with the FFRB, DOMB, and HSL – to museums guarantees their healthy survival in perpetuity.

Further, the 3D scanning and documentation of surviving watercraft assists underwater archaeologists in identifying wrecks of the same or similar manufacture on the bottom of Minnesota's lakes and rivers. In addition, the 3D scanning of complete boats and specific components and attributes is useful for preservation, conservation, and restoration purposes. Also, printing examples of the scanned boats in 3D miniature can augment the archival record of each object, and even promote a museum's collection by offering the printed models as gift shop kits, complete with paint.

References

Barron County Historical Society. ND. *Marine Building*. https://www.barron countymuseum.com/about1-c1pip

Bemidji Daily Pioneer. 1909, 16 April.

Benjamin, Fred B. 1991. *Mille Lacs Indian Trading Post Oral History Project*. Transcript. Interviewed by Anthony Godfrey. Minnesota Historical Society: St. Paul, MN

Bismarck Tribune. 1922, 6 July.

Board of Park Commissioners. 1901. *Tenth Annual Report of the Board of Park Commissioners of the City of Saint Paul*. Pioneer Press Company: St. Paul, MN.

_____. 1902. *Eleventh Annual Report of the Board of Park Commissioners of the City of Saint Paul*. Pioneer Press Company: St. Paul, MN.

_____. 1905. *Fourteenth Annual Report of the Board of Park Commissioners of the City of St. Paul for the Year Ending December 31st, 1904*. Review Publishing Company: St. Paul, MN.

_____. 1907. *Sixteenth Annual Report of the Board of Park Commissioners of the City of St. Paul for the Year Ending December 31, 1906*. Pioneer Press Manufacturing Departments: St. Paul, MN.

_____. 1908. *Seventeenth Annual Report of the Board of Park Commissioners of the City of St. Paul for the Year Ending December 31, 1907*. Review Publishing Company: St. Paul, MN.

_____. 1909. *Eighteenth Annual Report of the Board of Park Commissioners of the City of St. Paul for the Year Ending December 31, 1908*. Review Publishing Company: St. Paul, MN.

_____. 1910. *Nineteenth Annual Report of the Board of Park Commissioners of the City of St. Paul for the Year Ending December 31st, 1909*. City of St. Paul: St. Paul, MN.

_____. 1911. *Twentieth Annual Report of the Board of Park Commissioners of the City of St. Paul for the Year Ending December 31, 1910*. The Pioneer Company: St. Paul, MN.

_____. 1912. *Twenty-First Annual Report of the Board of Park Commissioners of the City of St. Paul for the Year Ending December 31, 1911*. McGill-Warner Company: St. Paul, MN,

Board of Water Commissioners**.** 1906. *Twenty-Fourth Annual Report of the Board of Water Commissioners of the City of St. Paul: January 1, 1906*. The Pioneer Press Manufacturing Departments: St. Paul, MN.

_____. 1907. *Twenty-Fifth Annual Report of the Board of Water Commissioners of the City of St. Paul: January 1, 1907*. The Pioneer Press Manufacturing Departments: St. Paul, MN.

_____. 1908. *Twenty-Sixth Annual Report of the Board of Water Commissioners of the City of St. Paul: January 1, 1908*. The Pioneer Press Manufacturing Departments: St. Paul, MN.

_____. 1910. *Twenty-Eighth Annual Report of the Board of Water Commissioners of the City of St. Paul: January 1, 1910*. 1910, The Pioneer Press Company: St. Paul, MN.

Boating. 1907a, February; 1907b, June.

Bowel, Captain William D. 2004. *The Story of the 16 Ft. Dingle Boat Given to Capt. Wm. D. Bowell Sr by Bud Moeller*. On file at the Minnesota Historical Society, 2004.82.1.A-F Accession File.

Brainerd Daily Dispatch. 1929, 2 May; 1933, 3 August; 1945, 11 December; 1949, 13 December.

Broehl, Jr., Wayne G. 1992. *Cargill: Trading the World's Grain*. University Press of New England: Hanover, NH.

Bureau of Navigation. 1923. *List of Merchant Vessels of the United States*. Department of Commerce, Government Printing Office: Washington, DC.

Caldwell, Letitia Bella. 1991. *Mille Lacs Indian Trading Post Oral History Project*. Transcript. Interviewed by Anthony Godfrey. Minnesota Historical Society: St. Paul, MN.

Castle, Henry A. 1912. *History of St. Paul and Vicinity*. Vol. III. Lewis Publishing Company: Chicago, IL and New York, NY.

Chief of Engineers. 1912. *Report of the Chief of Engineers U.S. Army 1912. Part 3*. US Army Corps of Engineers. Government Printing Office: Washington, DC.

_____. 1913. *Report of the Chief of Engineers U.S. Army 1913. Part 3*. US Army Corps of Engineers. Government Printing Office: Washington, DC.

_____. 1914. *Report of the Chief of Engineers U.S. Army 1914. Part 3*. US Army Corps of Engineers. Government Printing Office: Washington, DC.

_____. 1915. *Report of the Chief of Engineers U.S. Army 1915. Part 3*. US Army Corps of Engineers. Government Printing Office: Washington, DC.

_____. 1917. *Report of the Chief of Engineers U.S. Army 1917. Part 3*. US Army Corps of Engineers. Government Printing Office: Washington, DC.

City Comptroller. 1886. “Financial Report of the City Comptroller of the City of St. Paul from January 1, 1881 to January 1, 1882” in *St. Paul Daily Globe* 1886, 11 May.

_____. 1904. *Thirteenth Annual Report of the City Comptroller of the City of St. Paul for the Fiscal Year Ending December 31, A.D. 1903.* Pioneer Press Company: St. Paul, MN.

City of St. Paul. 1902. *Annual Reports of the City Officers and City Boards of the City of St. Paul for the Year Ending Dec. 31, 1901*. The Pioneer Press Company: St. Paul, MN.

_____. 1915, *Proceedings of the Common Council of the City of St. Paul, Ramsey County, Minnesota 1915*. Review Publishing Co.: St. Paul, MN.

Clark, Florence L. 1922. “Dr. Mayo’s Yacht, ‘North Star’” in *Motor Boat*, 10 November, Volume XIX, No. 21: 25.

Cokato Enterprise. 1948, 8 April; 1949, 7 April; 1955a, 17 March; 1955b, 14 April.

Cokato Museum. *Cokato Boat Works Outboard Motor Boat*. Accession File. Cokato Museum: Cokato, MN.

Cole, H. 1910. “Among the Lakes of Minnesota” in *Power Boating*, July Volume VI, No. VII: 377-381.

Collins, Paul. 2008. “The Oddball Know-It-All” in *The New York Times*, 5 December.

Commissioner of Public Works. 1931. *Annual Report of the Commissioner of Public Works of the City of Saint Paul*. Pioneer Press Co.: St. Paul, MN.

Copyright Office. 1957. *Catalog of Copyright Entries: Books and Pamphlets Including Serials and Contributions to Periodicals, July-December 1956*. Third Series: Vol. 10, Part 1, Number 2. Library of Congress: Washington, DC.

Daily Gate City. Keokuk, IA. 1908, 19 November.

Daily Missoulian. Missoula, MT. 1914, 30 April.

Desmond, Kevin. 2004. *Race Against the Odds: The Tragic Success Story of Miss England II*. Sigma Press: Wilmslow, Cheshire, UK.

Devils Lake Inter-Ocean & Devils Lake Free Press. Devils Lake, ND. 1908, 10 July.

Dillon, W. R. 1928. “Motor Boats Protect Water Fowl” in *Motor Boating*, May, 18-19, 130.

Divine, Mary. 2008. “Beached Boat Gets Heave-Ho from Back Yard” in *Pioneer Press*, 30 April.

Ellis, S. E. 1906. *Picturesque Minnetonka*. S. E. Ellis: Minneapolis, MN.

Evening Tribune. Albert Lea, MN. 1908, 16 November; 1942, 23 October.

Fishman, Joanne A. 1989. *The Guide to High Performance Powerboating: From Racecourse to High-Speed Pleasure Boat*. Hearst Marine Books: New York, NY.

Fore 'N' Aft. 1907a, July; 1907b, September.

Fox, Joseph P. 1943. *Patent 2318213*. https://www.google.com/patents/US2318213

Grand Forks Daily Herald. Grand Forks, ND. 1916, 19 June.

Hennepin County Herald. 1919, 18 September.

Herter's, Inc. 1949. *Decoys and Game Call, Special Paints, Cements, Push Pole Heads, Boat and Decoy Make Supplies and Equipment*. Wholesale Catalog No. 84. Herter's, Inc.: Waseca, MN.

_____. 1951. *Decoys, Game Calls, Vari-Chokes, Boat and Decoy Making Equipment*. Wholesale Catalog No. 86. Herter's, Inc.: Waseca, MN.

_____. 1956. *Why You Should Use Herter's Chrome Fiberglas Process for Boat Covering, Repairing or Building*. Herter's, Inc.: Waseca, MN.

_____. 1969. *Herter's Boats: World Famous Chrome Fiberglas*. Herter's, Inc.: Waseca, MN.

Hopkins, G.M. 1916. Plat Book of the City of Saint Paul, Minn. G.M. Hopkins and Company: Philadelphia, PA.

Jenkinson, Thomas, and Norene Roberts. 1985. *Ellen Ruth National Register of Historic Places Nomination*. Historical Research, Inc.: Minneapolis, MN.

John R. Borchert Map Library. University of Minnesota: Minneapolis, MN.

Joseph Dingle Boat Works. ND. *Designers and Builders of All Kinds of Pleasure Craft: Joseph Dingle Boat Works*. Joseph Dingle Boat Works: St. Pau, MN.

Judson, Jr., Edmund L. 1920. "Odds and Ends of Show Gossip" in *Motor Boat*, 25 December, Vol. XVII, No. 24.

Kegg, Maude. 1991. *Mille Lacs Indian Trading Post Oral History Project*. Transcript. Interviewed by Anthony Godfrey. Minnesota Historical Society: St. Paul, MN.

Knauff, Don. ND. *Herters 1956-1961 Fiberglass Runabouts*. On file at the Waseca County Historical Society: Waseca, MN.

Lake Breeze, 5 May 1888a; 26 May 1888b; 1 June 1888c.

Legeros, Michael J. 2013. *Historic and Former St. Paul Firehouses*. http://legeros.com/history/st-paul/

Marine News. 1946, Volume 33.

Maxwell, George Earl. 1953. *Patent 2743696 A*. https://www.google.com/patents/US2743696

McGinnins, Scott. 2010. *A Directory of Old Boats*. Scott D. McGinnis: Chaska, MN.

Mecum Auctions. 2010a. *The Warner Collection: The Awakening of an American Treasure*. Mecum Auctions: Marengo, IL.

_____. 2010b. "Warner Collection: Vintage Wooden Boat Event Nets Nearly $4 Million" in *Mecum Monthly*. November: 4-5.

Merjanian, Peggy. ND. *The Story of the Glengarry*. http://acbs-bslol.com/boating-history/porthole/glengarry/

Merriman, Ann, and Christopher Olson. 2015. *Lake Minnetonka Nautical Archaeology 5 Project Report*. Maritime Heritage Minnesota: St. Paul, MN.

_____. 2016. *Lake Minnetonka Nautical Archaeology 6 Project Report*. Maritime Heritage Minnesota: St. Paul, MN.

Mille Lacs Messenger. 1929, 9 May; 1933a, 9 March; 1933b, 18 May; 1933c, 8 June; 1938, 7 April; 2013, 6 March.

Miller, Kristen. 2008. "Back into One Piece: More Than 50 Years Later, a Rare Cokato Boat Works Boat Resurfaces" in *Enterprise Dispatch*, 14 July.

Minneapolis Journal. 1902a, 22 February; 1902b, 5 March; 1902c, 23 June; 1902d, 28 July; 1904a, 14 June; 1904b, 17 June; 1905a, 31 May; 1905b, 3 June; 1905c, 30 June; 1905d, 11 July; 1905e, 4 August; 1905f, 5 September.

Minneapolis Times. 1896, 24 May.

Minneapolis Tribune. 1889, 12 May; 1902a, 29 April; 1902b, 27 July; 1905, 4 June; 1909, 15 August.

Minnesota Historical Society. *Photograph Collection*. Minnesota Historical Society: St. Paul, MN.

_____. *Timeline*. Mille Lacs Indian Museum and Trading Post. http://sites.mnhs.org/historic-sites/mille-lacs-indian-museum/timeline

_____. *Finding Aid*. Harry D. Ayer and Family Papers. Minnesota Historical Society: St. Paul, MN.

_____. 1988. *Herter's St. Lawrence Model, 1988.338.1.A-C*. Accession Information. On file at the Minnesota Historical Society, St. Paul, MN.

Minnesota, Ramsey County. 1895. *Inhabitants in the City of St. Paul, County of Ramsey*. State Census Index: St. Paul, MN.

_____. 1905. *Fifth Decennial Census of Minnesota Population Schedule*. State Census Index: St. Paul, MN.

Minnesota Resources Commission. 1941. *Directory of Minnesota Manufacturers Classified by Industry and By County*. Minnesota Resources Commission: St. Paul, MN.

_____. 1946. *Guide Book to Minnesota Industry: Q Directory of Minnesota Manufacturers Classified by Industry and By Community Location*. Minnesota Resources Commission: St. Paul, MN.

Minnetonka Herald. 1954,12 August.

Minnetonka Record. 1905, 2 June.

Miron, Molly. 2007. "Roamer Has Plied Cass Lake for 87 Years" in *Bemidji Pioneer*, 14 July.

Mitchell, Sally. 1991. *Mille Lacs Indian Trading Post Oral History Project*. Transcript. Interviewed by Anthony Godfrey. Minnesota Historical Society: St. Paul, MN.

Moorhead Daily News. 1942, 22 October; 1943, 5 April.

Motor Age. 1905, 22 June.

Motor Boat. 1907a 10 May; 1907b, 25 May; 1908, 25 December; 1909a, 10 July; 1909b, 25 July; 1909c, 10 August; 1920, 25 November; 1952, August.

Motor Boating. 1922, December; 1923, October; 1933, June; 1934 February; 1935 July; 1952a, July; 1952b, August; 1954, January.

Motoring and Boating. 1905, 11 May.

Mott, Henry A. 1894. *Yachts and Yachtsmen of America*. Volume 1. International Yacht Publishing Company: New York, NY.

Naval History Division. 1976. *Dictionary of American Naval Fighting Ships*. Volume VI. Department of the Navy: Washington, DC.

Neuzil, Mark. 2004. *Passion for the River: Mayo and the Mississippi*. Mayo Foundation for Medical Education and Research: Rochester, MN.

Northwestern Tourist. 1889, 18 May; 1890, 5 July.

Open Exhaust. 1915a, 10 June; 1915b, 10 September; 1915c, 10 November; 1916, 10 February; 1917a, 10 February; 1917b June.

Pacific Motor Boat. 1920 January, Volume 12, No. 4.

Polk, Ralph L. and Jacob W. Weeks. 1879. *St. Paul City Directory 1879-80*. R.L. Polk & Co. and A.C. Danser: St. Paul, MN.

Polk, Ralph L. 1914. *R.L. Polk & Co.'s St. Paul City Directory 1914*. Vol. L. R.L. Polk & Co. Publishers: St. Paul, MN.

Popular Science. 1957, March; 1959, January.

Power Boat News. 1905a, 29 April; 1905b, 13 May.

Power Boating. 1910a January; 1910b June; 1914 January; 1916 August.

Ramaley Boat Company. ~1911. *Ramaley Boats*. Ramaley Boat Company: White Bear Lake, MN.

_____. ~1913. *Ramaley Row Boats*. Ramaley Boat Company: Wayzata, MN.

Railway Signaling and Communications. 1927, March, Volume 20, No. 3.

Ramsey County. 1928. *Financial Statement of Ramsey County, Minnesota: For the Fiscal Year Ending February 28*. Ramsey County: St. Paul, MN.

Research Division. 1949. *Directory of Minnesota Manufacturers and Guide Book to Minnesota Industry*. Minnesota Department of Research and Development: St. Paul, MN.

_____. 1952. *1952 Directory of Minnesota Manufacturers*. Minnesota Department of Business Research and Development: St. Paul, MN.

_____. 1955. *Minnesota Directory of Manufacturers 1955: A Listing of Minnesota-Made Products and Their Producers*. Minnesota Department of Business Development: St. Paul, MN.

_____. 1957. *Minnesota Directory of Manufacturers 1957: A Listing of Minnesota-Made Products and Their Producers*. Minnesota Department of Business Development: St. Paul, MN.

Republican Herald. Winona, MN. 1951, 22 September.

Rock Island Argus. 1912, 30 September; 1914, 25 September.

The Rudder. 1909, September; 1947, March.

Sables, Robert P. 2005. *The Story of USS SC-1024*. NavSource. http://www.navsource.org/archives/12/151024d.htm

Sam, Batiste. 1991. *Mille Lacs Indian Trading Post Oral History Project*. Transcript. Interviewed by Anthony Godfrey. Minnesota Historical Society: St. Paul, MN

Sanborn Map Company. 1904. *Insurance Maps of St. Paul, Minnesota*. Sanborn Map Company: New York, NY.

_____. 1912. *Insurance Maps of Wayzata, Minnesota*. Sanborn Map Company: New York, NY.

Schley, Tom. 2001. "Mahogany Bay: The House that Todd Built" in *Antique & Classic Boat Magazine*. November-December: 15-28.

Smith, Doug. 2015. "Herter's Catalog is Long Gone, But Not Forgotten" in *Star Tribune*, 7 February.

Sommers, Laura. 2000. *American Dreamboats: An Illustrated History of Larson Boats – the Company, the Boats, and the Times 1913-2000*. Larson Boats: Little Falls, MN.

St. Paul Globe. 1900a, 9 May; 1900b, 4 December; 1902, 27 April; 1904a, 1 May; 1904b, 19 June.

St. Paul Daily Globe. 1880, 5 March; 1881, 29 April; 1883, 14 July; 1884a, 18 March 1884b, 12 September; 1884c, 31 December; 1885a, 31 January; 1885b, 10 June; 1888a, 2 February; 1888b 17 May; 1889, 16 June; 1890a, 19 April; 1890b, 24 July; 1890c, 28 July; 1891a, 26 April; 1891b, 18 May; 1891c, 31 May; 1891d, 12 July; 1892a, 17 April; 1892b, 15 May; 1892c, 29 May; 1892d, 19 June; 1892e, 3 July; 1892f, 14 August; 1892g, 21 August; 1892h, 28 August; 1892i, 4 September; 1893a, 29 May; 1893b, 6 June; 1893c, 25 June; 1893d, 2 July; 1893e, 6 August; 1893f, 27 August, 1893g, 28 August; 1893h, 10 September; 1894a, 29 May; 1894b, 31 May; 1894c, 8 July; 1894d, 22 July; 1894e, 29 July; 1894f, 19 August; 1895a, 12 May; 1895b, 31 May; 1895c, 25 August; 1895d, 29 August; 1895e, 8 September.

Steel. 1934, Volume 95.

Vadnais, Cynthia. 2004. *Looking Back at White Bear Lake – A Pictorial History of the White Bear Lake Area*. White Bear Stereoptics Company: White Bear, MN.

Waterways Journal. 1975, 24 May; 1996, 6 May.

Waymarking. 2013. *Mille Lacs Indian Boat Works*. MNHS Historical Marker. http://www.waymarking.com/waymarks/WMJK3B_Mille_Lacs_Indian_Boat_Works_Vineland_MN

Wayzata Reporter. 1912, 14 November.

West Hennepin History Center. *Photograph Collection*. West Hennepin History Center: Long Lake, MN.

White Bear Life, 23 March 1900; 18 January 1901a; 17 May 1901b.

Willmar Tribune. 1916, 26 April.

Woodyboater. 2013. *Classic Minnesota Part 2: Glengarry, Celebrating 75 Years of Service on the St. Croix River*. http://www.woodyboater.com/blog/2013/08/23/classic-minnesota-part-2-glengarry-celebrating-75-years-of-service-on-the-st-croix-river/